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OFFICIAL YEAR BOOK OF THE COMMONWEALTH
OF AUSTRALIA.

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Australia,

COMMONWEALTH BUREAU OF CENSUS AND STATISTICS,
CANBERRA.

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OFFICIAL

YEAR BOOK

OF THE

COMMONWEALTH OF AUSTRALIA/

—
No. 31.—1938.
—

Prepared under Instructions from
The Honorable the Treasurer,

BY

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PREFACE.

By the Constitution of the Commonwealth of Australia, the Parliament of the Commonwealth is empowered "to make laws for the peace, order, and good government of the Commonwealth, with respect to Census and Statistics." In the exercise of the power so conferred, a "Census and Statistics Act" was passed in 1905, and in the year following, the "Commonwealth Bureau of Census and Statistics" was created. The first Official Year Book was published early in 1908. The publication here presented is the thirty-first Official Year Book issued under the authority of the Commonwealth Government.

The synopsis on pp. vii to xxi immediately following shows the general arrangement of the work. The special index (following the usual general index) provided at the end of the volume, together with certain references given in the various Chapters, will assist in tracing in previous issues matter which, owing to limitations of space, has been omitted or is not printed fully in the present volume.

Economic and financial conditions during recent years have caused a demand for new information, or information expressed in new terms, concerning many matters of finance, trade, prices, production and population, and some progress has been made in the later volumes towards bringing closer to present day requirements the Chapters dealing with these branches of statistics, while the Appendix furnishes a summary of the principal financial and economic events of more recent years.

In the present volume the section dealing with retail prices has been recast, and particulars of State finance and life assurance have been brought into line with the Statistics of Commonwealth finance by the insertion of figures for the last completed year. The graphical presentation throughout has been reviewed, and many of the old graphs have been replaced by new drawings.

A specially contributed article on "The Tides of Australia" is included in the present issue, and is placed at the end of Chapter XXVIII.—Miscellaneous, which chapter also includes a review of the National Health and Pensions Insurance Act recently passed by the Commonwealth Parliament.

Later information which has come to hand since the various Chapters were sent to press has been incorporated in the Appendix (p. 1002).

The material contained in each issue is always carefully examined, but it would be idle to hope that all error has been avoided. I shall be grateful to those who will be kind enough to point out defects or make suggestions.

My best thanks are due to the State Statisticians, who have collected and compiled the data on which the greater part of the information given in the Year Book is based. Thanks are also due to the responsible officers of the various Commonwealth and State Departments, and to others, who have kindly, and often at considerable trouble, supplied information; special mention should be made of the services of the Chief Draftsman of the Property and Survey Branch, Department of the Interior, who was responsible for the drawing of the graphs throughout this volume.

I wish to express my keen appreciation of the valuable work performed by Mr. J. Barry, the Editor of the Year Book, and of the services rendered by the officers in charge of the various branches of the Commonwealth Bureau of Census and Statistics, upon whom has devolved the duty of revising the Chapters relative to their respective branches.

ROLAND WILSON,
Commonwealth Statistician.

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STATISTICAL SUMMARY.

STATISTICAL SUMMARY, AUSTRALIA.

		Year.						
Heading.		1881.	1891.	1901.	1911.	1921.	1931.	1937.
Population(a)	Males	1,247,059	1,736,617	2,004,836	2,382,232	2,799,462	3,332,577	3,473,819
	Females	1,059,677	1,504,368	1,820,077	2,191,554	2,711,532	3,220,029	3,392,771
Births	Persons	2,306,736	3,240,985	3,824,913	4,573,786	5,510,994	6,552,606	6,866,390
	No.	80,004	110,187	102,945	122,193	136,198	118,509	119,131
Deaths	Rate	35.26	34.47	27.16	27.21	24.95	18.16	17.43
	No.	33,327	47,430	46,330	47,869	54,076	56,560	64,496
Marriages	Rate	14.69	14.84	12.22	10.66	9.91	8.67	9.44
	No.	17,244	23,862	27,753	39,482	46,869	38,882	59,448
	Rate	7.60	7.47	7.32	8.79	8.59	5.96	8.70
		1881-82.	1891-92.	1901-02.	1911-12.	1921-22.	1931-32.	1936-37.
Agriculture—								
Wheat	Area, acs.	2,995,814	3,334,957	5,115,965	7,427,834	9,719,042	14,741,313 (f)	13,686,420
	Yld., bshl.	21,443,862	25,675,265	38,561,619	71,636,347	129,088,806	190,612,188 (f)	188,151,800
Oats	Area, acs.	194,816	246,129	461,430	616,794	733,406	1,085,489	1,524,861
	Yld., bshl.	4,795,897	5,726,256	9,789,854	9,561,833	12,147,433	15,194,680	16,662,279
Barley	Area, acs.	24,622	23,227	21,222	15,500	16,560	14,000	10,933
	Yld., bshl.	75,864	68,068	74,511	116,466	298,910	342,396	470,257
Maize	Area, acs.	1,353,380	1,178,560	1,519,819	2,056,836	6,085,685	6,290,672	7,336,767
	Yld., bshl.	17,84	17,31	20,40	17,66	20,36	18,37	15,60
Hay	Area, acs.	165,777	284,428	294,849	340,065	305,186	269,448	317,170
	Yld., tons	768,388	942,166	1,688,402	2,518,351	2,994,519	2,634,680	3,100,876
Potatoes(b)	Area, acs.	767,194	1,067,255	2,024,608	2,867,973	3,902,180	3,167,459	3,447,647
	Yld., tons	1,00	1,13	1,20	1,14	1,30	1,20	1,11
Sugar Cane	Area, acs.	76,265	112,884	109,685	130,463	149,144	145,111	130,020
	Yld., tons	243,216	380,477	322,524	301,489	388,091	397,102	461,318
Vineyards	Area, acs.	3,19	3,37	2,94	2,31	2,60	2,74	3,55
	Yld., tons	19,708	45,444	86,950	101,010	128,356	241,576	256,149
Total gross value of agricultural production	£	340,627	737,573	1,367,802	1,682,280	2,426,830	4,213,453	5,445,740
	(c)	17,74	16,23	15,73	16,65	18,99	17,44	21,26
Pastoral, dairying, etc.—	Area, acs.	14,569	48,882	63,677	60,602	92,414	112,961	123,165
	Wine, gal.	1,438,060	3,437,508	5,202,447	4,975,147	8,544,573	14,190,552	20,107,004
Live Stock	Sheep No.	65,092,719	106,421,068	72,040,211	96,886,234	86,119,068	110,618,893 (f)	114,594,442
	Cattle ..	8,010,001	11,112,112	8,401,128	11,828,951	14,441,309	12,200,955	13,491,072
Wool prod. lb. (greasy)	Horses	1,088,029	1,584,737	1,620,420	2,278,226	2,438,182	1,775,550	1,762,750
	Pigs	703,188	845,888	931,309	1,110,721	960,385	1,167,845	1,202,752
Butter production	lb.	319,619,000	634,046,000	530,395,000	798,391,000	723,050,000	1,007,455,847	1,010,000,000
	(d)	42,314,585	103,717,205	212,073,715	297,071,340	300,054,000	413,015,000	413,015,000
Cheese production	lb.	(d)	10,130,015	11,815,153	15,886,712	21,053,003	31,422,973	44,728,839
	(d)	(d)	16,771,886	34,020,629	53,335,092	58,626,469	71,121,740	73,677,003
Total gross value of pastoral and dairying production	£	29,538,000	39,256,000	36,890,000	72,883,000	119,399,000	103,018,000	155,385,000
	(d)	(d)	(d)	452,131	604,794	590,495	236,707	654,936
		1881.	1891.	1901.	1911.	1921.	* 1931.	1937.
Mineral production—								
Gold	£	5,194,390	5,281,861	14,017,538	10,551,624	4,018,685	3,563,510	11,084,088
	£	45,622	3,736,352	2,248,598	3,022,177	1,539,992	1,443,897	5,820,112
Silver and lead	£	714,003	367,733	2,215,431	2,564,278	803,957	567,558	1,163,413
	£	1,145,889	560,502	448,234	1,209,973	418,418	216,205	864,159
Tin	£	200	2,979	4,067	1,415,169	283,455	512,705	1,789,941
	£	637,865	1,912,353	2,602,733	3,927,360	11,014,831	6,355,246	7,662,222
Zinc	£							
	£							
Coal	£							
	£							
Total value of all mineral production	£	7,820,290	12,074,106	21,816,772	23,302,878	20,029,107	13,352,316	31,970,166
Forestry production—								
Quantity of local timber sawn or hewn—								
	1,000 sup. ft.	(d)	(d)	452,131	604,794	590,495	236,707	654,936

(a) At 31st December.
not available. (c) Years
(f) 1937-38 figures.

(b) Partly estimated for 1881.
ended December, except for last two columns which refer to years ended June.

(c) Area of productive cane.

(d) Information
for years ended June.

STATISTICAL SUMMARY, AUSTRALIA—continued.

Heading.		Year.					
		1881.	1891.	1901.	1911.	1921-22.	1931-32.
							1937-38.
Manufactories—							
No. of factories	No.				14,455	18,023	21,657
Hands employed	No.				311,710	378,540	336,658
Wages paid	£				27,528,377	68,050,801	55,931,818
Value of production	£				51,250,004	121,674,119	110,981,830
Total value of output	£				133,022,000	320,340,765	281,645,785
Shipping—							
Oversea vessels (No. ent. & cleared tons)		3,284	3,778	4,028	4,174	3,111	3,057
Commerce		2,549,304	4,720,307	9,541,901	9,084,801	9,081,278	11,395,784
Imports, oversea	£	29,067,000	37,711,000	42,434,000	66,967,488	103,066,436	44,712,868
per head	£	12 10 2	11 16 0	11 3 11	14 18 2	18 14 7	16 12 1
Exports, oversea	£	27,528,000	36,043,000	49,690,000	79,483,258	127,846,535	85,842,887
per head	£	12 2 8	11 5 6	13 2 2	17 13 10	23 4 1	13 1 11
Total oversea trade	£	56,595,000	73,754,000	92,130,000	146,440,746	230,912,971	130,555,755
per head	£	24 18 10	23 1 6	24 6 1	32 12 0	41 18 2	19 18 5
Customs and Excise duties	£	4,809,326	7,440,869	8,656,530	13,515,005	27,565,199	28,524,996
per head	£	2 2 5	2 6 7	2 5 8	2 19 2	5 0 1	4 7 1
Principal Oversea Exports (c)							
Wool	lb. (greasy)	328,360,200	619,259,800	518,018,100	720,364,900	927,833,700	893,644,118
	cental	13,173,620	19,040,020	15,237,454	26,071,193	17,977,044	32,102,219
Wheat		3,218,792	5,876,875	12,156,035	33,088,704	50,968,334	76,440,603
	tons	1,189,762	1,938,864	2,774,643	9,641,608	28,644,155	19,220,203
Flour		49,549	33,303	96,814	175,891	359,731	610,858
	lb.	519,635	328,423	589,604	1,391,529	5,519,881	3,833,237
Butter		1,298,800	4,230,500	14,607,400	101,722,100	177,347,400	207,639,404
	£	30,383	206,868	1,451,168	4,637,362	7,968,078	10,259,002
Skins and hides		316,878	873,695	1,250,938	3,222,236	3,136,810	2,315,594
Tallow		644,149	571,069	677,745	1,935,836	1,447,795	337,415
Meats		362,965	460,804	2,611,244	4,303,159	5,542,102	6,370,012
Timber (undressed)		118,117	38,448	731,301	1,023,090	1,158,166	1,325,591
Gold		9,445,365	5,703,532	14,315,741	12,045,766	2,697,230	12,094,786
Silver and lead		57,954	1,932,278	2,250,253	3,212,584	2,697,130	2,902,050
Copper		676,515	417,687	1,619,145	2,345,961	705,358	472,468
Coal		361,081	645,972	986,957	900,622	1,099,809	341,800
Govt. Railways—							
Lgh. of line open, mls.		3,832	9,541	12,570	16,078	23,502	29,959
Capital cost	£	42,744,350	90,764,690	123,223,779	152,194,603	244,353,233	323,398,150
Gross revenue	£	3,910,122	8,654,085	11,038,168	17,847,837	38,194,630	37,570,905
Working expenses	£	2,147,175	5,630,182	7,133,617	10,945,727	29,817,970	28,141,984
Per cent. on working expenses on earnings %		54.77	65.06	64.63	61.33	78.07	74.88
Postal—							
Letters and postcards dealt with	No.	67,640,000	157,297,000	220,853,000	453,003,000	501,973,105	731,134,500
per head		29.61	49.07	58.26	100.90	101.01	111.62
Newspapers dealt with	No.	38,063,000	85,280,000	102,727,000	141,638,000	140,477,184	139,502,100
per head		16.66	26.61	27.10	31.54	25.50	21.30
Cheque-paying Banks(e)							
Note circulation	£	3,978,711	4,417,269	3,399,462	3,718,458	213,868	197,121
Coin & bullion held	£	9,168,243	16,712,933	19,780,528	33,470,770	21,626,832	2,882,026
Advances	£	57,732,824	120,741,583	86,352,832	108,575,771	193,435,700	200,917,815
Deposits	£	53,849,455	98,345,338	91,487,118	143,416,910	273,866,717	319,241,333
Savings Banks (j) —							
Total deposits	£	7,854,480	15,536,592	30,882,645	59,393,682	151,390,681	197,900,308
Aver. per head of population	£	3 10 5	4 18 7	8 3 0	13 8 5	28 0 4	30 1 11
						1921.	1931.
							1936.
State Schools—							
Number of Schools	No.	4,494	6,231	7,012	8,090	9,415	10,097
Teachers	No.	9,028	12,564	14,500	16,071	20,120	33,792
Enrolment	No.	432,320	501,153	638,478	938,550	819,012	930,601
Aver. attendance	No.	255,143	350,773	450,246	463,799	666,498	817,262

(a) Owing to variation in classification and lack of information effective comparison is impossible.
 (b) British currency values. The recorded values were—Exports, 1931-32, £A109,034,065; and 1937-38, £A157,580,120.
 (c) Australian produce, except gold, which includes re-exports. (d) Includes packets.
 (e) Figures for the first three years are averages for the December quarter; the remainder for the June quarter.
 (f) 1936-37 figures. (g) Decrease due to prohibition of re-issue. (h) Includes Commonwealth Savings Bank Deposits. (i) Government "Set-off" accounts, Interstate (Commonwealth Bank) excluded. (j) First three years at 31st December, next three at 30th June. (k) Quarter ended December, 1938. (l) At 31st December, 1938.

CHRONOLOGICAL TABLE.

CHRONOLOGICAL TABLE OF CHIEF EVENTS SINCE THE ESTABLISHMENT OF SETTLEMENT IN AUSTRALIA.

NOTE.—The Government was centralized in Sydney, New South Wales, up to 1825, when Tasmania (Van Diemen's Land) was made a separate colony. In the Table, the names now borne by the States serve to indicate the localities.

- Year.
- 1788 N.S.W.—Arrival of "First Fleet" at Botany Bay. Land in vicinity being found unsuitable for settlement, the expedition moved to Sydney Cove. Formal proclamation of colony on 7th February. Branch Settlement established at Norfolk Island. French navigator Lapérouse visited Botany Bay. First cultivation of wheat and barley. First grape vines planted.
- 1789 N.S.W.—First wheat harvest at Parramatta, near Sydney. Discovery of Hawkesbury River.
- 1790 N.S.W.—"Second Fleet" reached Port Jackson. Landing of the New South Wales Corps.
- 1791 N.S.W.—Arrival of "Third Fleet." Territorial seal brought by Governor King.
- 1792 N.S.W.—Visit of *Philadelphia*, first foreign trading vessel.
- 1793 N.S.W.—First free immigrants arrived in the *Bellona*. First Australian church opened at Sydney. Tas.—D'Entrecasteaux discovered the Derwent River.
- 1794 N.S.W.—Establishment of settlement at Hawkesbury River.
- 1795 N.S.W.—Erection of the first printing press at Sydney. Descendants of strayed cattle discovered at Cowpastures, Nepean River.
- 1796 N.S.W.—First Australian theatre opened at Sydney. Coal discovered by fishermen at Newcastle.
- 1797 N.S.W.—Introduction of merino sheep from Cape of Good Hope.
- 1798 Tas.—Insularity of Tasmania proved by voyage of Bass and Flinders.
- 1800 N.S.W.—Hunter River coal mines worked. First Customs House in Australia established at Sydney. Flinders' charts published.
- 1801 N.S.W.—First colonial manufacture of blankets and linen.
- 1802 Vic.—Discovery of Port Phillip by Lieut. Murray. Q'land.—Discovery of Port Curtis and Port Bowen by Flinders. S.A.—Discovery of Spencer's and St. Vincent Gulfs by Flinders.
- 1803 N.S.W.—First Australian wool taken to England by Capt. Macarthur. Issue of "The Sydney Gazette," first Australian newspaper. Vic.—Attempted settlement at Port Phillip by Collins. Discovery of Yarra by Grimes. Tas.—First settlement formed at Risdon by Lieut. Bowen.
- 1804 N.S.W.—Insurrection of convicts at Castle Hill. Vic.—Abandonment of settlement at Port Phillip. Tas.—Foundation of settlement at Hobart by Collins, and at Yorktown by Colonel Paterson.
- 1805 N.S.W.—First extensive sheep farm established at Camden by Capt. Macarthur. Portion of settlers from Norfolk Island transferred to Tasmania.
- 1806 N.S.W.—Shortage of provisions. Tas.—Settlement at Launceston.
- 1807 N.S.W.—Final transfer of convicts from Norfolk Island. First shipment of merchantable wool (245 lb.) to England.
- 1808 N.S.W.—Deposition of Governor Bligh.
- 1809 N.S.W.—Isaac Nichols appointed to supervise delivery of overseas letters.
- 1810 N.S.W.—Post-office officially established at Sydney. Isaac Nichols first postmaster. First race meeting in Australia at Hyde Park, Sydney. Tas.—First Tasmanian newspaper printed.
- 1813 N.S.W.—Passage across Blue Mountains discovered by Wentworth, Lawson and Blaxland. Macquarie River discovered by Evans.
- 1814 N.S.W.—Flinders suggested the name "Australia," instead of "New Holland." Creation of Civil Courts.

- Year.
- 1815 N.S.W.—First steam engine in Australia erected at Sydney. Lachlan River discovered by Evans. Tas.—Arrival of first immigrant ship with free settlers. First export of wheat to Sydney.
- 1816 N.S.W.—Botanic Garden formed at Sydney.
- 1817 N.S.W.—Oxley's first exploration inland. Discovery of Lakes George and Bathurst and the Goulburn Plains by Meehan and Hume. First bank in Australia—Bank of New South Wales—opened at Sydney.
- 1818 N.S.W.—Liverpool Plains, and the Peel, Hastings and Manning Rivers discovered by Oxley, and Port Essington by Captain King.
- 1819 N.S.W.—First Savings Bank in Australia opened at Sydney.
- 1820 Tas.—First importation of pure merino sheep.
- 1821 Tas.—Establishment of penal settlement at Macquarie Harbour.
- 1823 N.S.W.—New South Wales Judicature Act passed. Discovery of gold at Fish River by Assistant-Surveyor McBrien. Qld.—Brisbane River discovered by Oxley.
- 1824 N.S.W.—Constituted a Crown Colony. Executive Council formed. Establishment of Supreme Court at Sydney, and introduction of trial by jury. First Australian Enactment (Currency Bill) passed by the Legislative Council. Proclamation of freedom of the press. First manufacture of sugar. Vic.—Hume and Hovell, journeying overland from Sydney, arrived at Corio Bay. Qld.—Penal settlement founded at Moreton Bay (Brisbane). Fort Dundas Settlement formed at Melville Island, N. Terr.
- 1825 N.S.W.—Extension of western boundary to 129th meridian. Tas.—Separation of Van Diemen's Land (Tasmania). Qld.—Major Lockyer explored Brisbane River to its source, and discovered coal.
- 1826 N.S.W.—Settlement in Illawarra District. Vic.—Settlement at Corinella, Western Port, formed by Captain Wright.
- 1827 N.S.W.—Colony became self-supporting. Qld.—Darling Downs and the Condamine River discovered by Allan Cunningham. W.A.—Military Settlement founded at King George's Sound by Major Lockyer. First official claim of British Sovereignty over all Australia.
- 1828 N.S.W.—Second constitution. First Census. Sturt's expedition down Darling River. Gas first used at Sydney. Richmond and Clarence Rivers discovered by Captain Rous. Vic.—Abandonment of settlement at Western Port. Qld.—Cunningham discovered a route from Brisbane to the Darling Downs, and explored Brisbane River.
- 1829 N.S.W.—Sturt's expedition down Murrumbidgee River. W.A.—Foundation of settlement at Swan River. Foundation of Perth.
- 1830 N.S.W.—Insurrection of convicts at Bathurst. Sturt, voyaging down Murrumbidgee and Murray Rivers, arrived at Lake Alexandrina. Tas.—Trouble with natives. Black line organized to force aborigines into Tasman's Peninsula, but failed. Between 1830 and 1835, however, George Robinson, by friendly suasion, succeeded in gathering the small remnant of aborigines (203) into settlement on Flinders Island.
- 1831 N.S.W.—Crown lands first disposed of by public competition. Mitchell's explorations north of Liverpool Plains. Arrival at Sydney of first steamer, *Sophia Jane*, from England. SS. *Surprise*, first steamship built in Australia, launched at Sydney. First coal shipped from Australian Agricultural Company's workings at Newcastle, N.S.W. First assisted immigration to N.S.W. S.A.—Wakefield's first colonization committee. W.A.—Appointment of Executive and Legislative Councils.
- 1832 N.S.W.—State Savings Bank established.
- 1833 N.S.W.—First School of Arts established at Sydney.
- 1834 N.S.W.—First settlement at Twofold Bay. Vic.—Settlement formed at Portland Bay by Henty Bros. S.A.—Formation of the South Australian Association. W.A.—Severe reprisals against natives at Pinjarrah.

Year.

- 1835 Vic.—John Batman arrived at Port Phillip; made treaty with the natives for 600,000 acres of land; claim afterwards disallowed by Imperial Government. Foundation of Melbourne.
- 1836 N.S.W.—Mitchell's overland journey from Sydney to Cape Northumberland. Vic.—Proclamation of Port Phillip district as open for settlement. S.A.—Settlement founded at Adelaide under Governor Hindmarsh.
- 1837 N.S.W.—Appointment in London of Select Committee on Transportation. Vic.—Melbourne named by Governor Bourke. First overlanders from Sydney arrived at Port Phillip.
- 1838 N.S.W.—Discontinuance of assignment of convicts. Qld.—Settlement of German missionaries at Brisbane. S.A.—“Overlanding” of cattle from Sydney to Adelaide along the Murray route by Hawden and Bonney. Settlement at Port Essington, Northern Territory, formed by Captain Bremer.
- 1839 N.S.W.—Gold found at Vale of Clwydd by Count Strzelecki. S.A.—Lake Torrens discovered by Eyre. Port Darwin discovered by Captain Stokes. W.A.—Murchison River discovered by Captain Grey.
- 1840 N.S.W.—Abolition of transportation to New South Wales. Land regulations—proceeds of sales to be applied to payment for public works and expenditure on immigration. Vic.—Determination of northern boundary. Qld.—Penal settlement broken up and Moreton Bay district thrown open. S.A.—Eyre began his overland journey from Adelaide to King George's Sound.
- 1841 N.S.W.—Gold found near Hartley by Rev. W. B. Clarke. W.A.—Completion of Eyre's overland journey from Adelaide to King George's Sound. Tas.—Renewal of transportation.
- 1842 N.S.W.—Incorporation of Sydney. Vic.—Incorporation of Melbourne. S.A.—Discovery of copper at Kapunda.
- 1843 N.S.W.—First Representative Constitution (under Act of 1842). First manufacture of tweed. Qld.—Moreton Bay granted legislative representation.
- 1844 Qld.—Leichhardt's expedition to Port Essington. S.A.—Sturt's last expedition inland.
- 1845 N.S.W.—Mitchell's explorations on the Barcoo. Qld.—Explorations by Mitchell and Kennedy. S.A.—Discovery of the Burra copper deposits. Sturt discovered Cooper's Creek.
- 1846 N.S.W.—Initiation of meat preserving. Qld.—Foundation of settlement at Port Curtis. S.A.—Proclamation of North Australia. W.A.—Foundation of New Norcia (Benedictine) Mission.
- 1847 N.S.W.—Iron smelting commenced near Berrima. Overland mail established between Sydney and Adelaide. Vic.—Melbourne created a City. Qld.—Explorations by Leichhardt, Burnett and Kennedy.
- 1848 Qld.—Leichhardt's last journey. Kennedy speared by the blacks at York Peninsula. Chinese brought in as shepherds.
- 1849 N.S.W.—Indignation of colonists at arrival of convict ship *Hashemy*. Exodus of population to goldfields of California. Vic.—Randolph prevented from landing convicts. Qld.—Assignment of convicts per *Hashemy* to squatters on Darling Downs. W.A.—Commencement of transportation to Western Australia.
- 1850 N.S.W.—Final abolition of transportation. First sod of first Australian railway turned at Sydney. Sydney University founded. Vic.—Gold discovered at Clunes by Hon. W. Campbell. Representative government granted. S.A.—Representative government granted. W.A.—Pearl oysters found by Lieut. Helpman at Saturday Island Shoal. Tas.—Representative government granted.

Year.

- 1851 N.S.W.—Payable gold discovered by Hargraves at Lewis Ponds and Summerhill Creek. Telegraph first used. Vic.—Separation of Port Phillip—erected into independent colony under the name of Victoria. Discovery of gold in various localities. "Black Thursday," 6th Feb., a day of intense heat. W.A.—Proclamation of Legislative Council Act.
- 1852 N.S.W.—Arrival of the *Chusan*, first P. and O. mail steamer from England. S.A.—First steamer ascended the Murray River to the junction with the Darling. Tas.—Meeting of first elective Council protests against transportation. Payable gold discovered at The Nook, near Fingal, and at Nine Mile Springs.
- 1853 Tas.—Abolition of transportation. Vic.—Melbourne University founded.
- 1854 Vic.—Opening of first Victorian railway—Flinders-street to Port Melbourne. Riots on Ballarat gold-fields. Storming of the Eureka Stockade, 3rd Dec.
- 1855 N.S.W.—Opening of railway—Sydney to Parramatta. Mint opened.
- 1856 N.S.W.—Pitcairn Islanders placed on Norfolk Island. W.A.—A. C. Gregory's expedition in search of Leichhardt.
Responsible Government in N.S.W., Vic., S.A. and Tas. (Act of 1855).
- 1857 N.S.W.—Wreck of the *Dunbar* (119 lives lost), and *Catherine Adamson* (21 lives lost), at Sydney Heads. Select Committee on Federation. Vic.—Manhood suffrage and vote by ballot. S.A.—Passage of Torrens' Real Property Act.
- 1858 N.S.W.—Establishment of manhood suffrage and vote by ballot. Telegraphic communication between Sydney, Melbourne and Adelaide. Qld.—Canoona gold rush.
- 1859 Qld.—Proclamation of Queensland as separate colony. Tas.—First submarine cable, via Circular Head and King Island to Cape Otway.
- 1860 Vic.—Burke and Wills left Melbourne and crossed to Gulf of Carpentaria. S.A.—Copper discoveries at Wallaroo and Moonta. McDouall Stuart reached centre of continent and named "Central Mount Stuart."
- 1861 N.S.W.—Anti-Chinese riots at Lambing Flat and Burrangong gold-fields. Opening of first tramway in Sydney. Regulation of Chinese immigration. Vic.—Burke and Wills perished at Cooper's Creek, near Innamincka, S.A.
- 1862 N.S.W.—Abolition of State aid to religion. Real Property Act. S.A.—Stuart crossed the Continent from south to north. W.A.—First export of pearl-shell.
- 1863 Vic.—Intercolonial Conference at Melbourne. S.A.—Northern Territory taken over. W.A.—Initiation of settlement in the North-west district. Henry Maxwell Lefroy discovered and traversed area now comprised in the Coolgardie-Kalgoorlie gold-field.
- 1864 Qld.—First railway begun and opened. First sugar made from Queensland cane. Tas.—First successful shipment of English salmon ova.
- 1865 N.S.W.—Destruction by fire of St. Mary's Cathedral, Sydney.
- 1866 N.S.W.—Passage of Public Schools Act of (Sir) Henry Parkes. S.A.—Introduction of camels for exploration, etc.
- 1867 Vic.—Imposition of protective tariff. Qld.—Discovery of gold at Gympie.
- 1868 N.S.W.—Attempted assassination of the Duke of Edinburgh at Clontarf, near Sydney. W.A.—Arrival of the *Hougomont*, last convict ship. Tas.—First sod of first railway (Launceston and Western) turned by Duke of Edinburgh.
- 1869 W.A.—First telegraph line opened from Perth to Fremantle.
- 1870 N.S.W.—Intercolonial Exhibition opened at Sydney. Imperial troops withdrawn. Vic.—Intercolonial Congress at Melbourne. S.A.—Commencement of trans-continental telegraph.
- 1871 N.S.W.—Permanent military force raised. W.A.—Passage of Elementary Education Act. Forrest's explorations. Tas.—Discovery of tin at Mount Bischoff. Launceston-Western railway opened for traffic.
- 1872 N.S.W.—International Exhibition at Sydney. Vic.—Mint opened. S.A.—Cable from Java to Port Darwin. Completion of transcontinental telegraph line.

Year.

- 1873 N.S.W.—Intercolonial Conference at Sydney. First volunteer encampment. Inauguration of mail service with San Francisco.
- 1874 N.S.W.—Triennial Parliaments Act passed. Intercolonial Conference. W.A.—John and Alexander Forrest arrived at Overland Telegraph from Murchison. S.A.—University of Adelaide founded.
- 1875 Qld.—Transfer of Port Albany Settlement to Thursday Island.
- 1876 N.S.W.—Completion of cable—Sydney (La Perouse) to Wellington (Wakapuaka). W.A.—Giles crossed colony from east to west. Tas.—Death of Truganini, last representative of Tasmanian aborigines.
- 1877 W.A.—Opening of telegraphic communication with South Australia.
- 1878 Qld.—Restriction of Chinese immigration.
Introduction of telephone into Australia.
- 1879 N.S.W.—First artesian bore at Killara. International Exhibition at Garden Palace, Sydney. First steam tramway. W.A.—A. Forrest's explorations in the Kimberley district, and discovery of the Fitzroy pastoral country.
- 1880 N.S.W.—Public Instruction Act passed. Vic.—Opening of first Victorian International Exhibition at Melbourne. First Australian Telephone Exchange opened in Melbourne.
Federal Conference at Melbourne and Sydney.
- 1881 N.S.W.—Further restrictions on Chinese immigration.
Visit to Australia of T.R.H. Prince Albert Victor and Prince George.
- 1882 W.A.—Nugget of gold found between Roebourne and Cossack.
- 1883 N.S.W.—Discovery of silver at Broken Hill. Completion of railway between New South Wales and Victoria. Qld.—Annexation of New Guinea—repudiated by Imperial authorities.
Federal Conference held at Sydney. Federal Council created.
- 1884 Federation Bill passed in Victoria and rejected in New South Wales. British protectorate declared over New Guinea.
- 1885 N.S.W.—Military contingent sent to the Sudan. Opening of the Broken Hill Proprietary Silver Mines. W.A.—Gold found by prospectors on the Margaret and Ord Rivers in the Kimberley district. Tas.—Silver-lead discovered at Mount Zeehan.
- 1886 Tas.—Discovery of gold and copper at Mount Lyell.
First session of Federal Council met at Hobart on the 26th January.
- 1887 N.S.W.—Disaster at Bulli coal mine (81 lives lost). S.A.—International Exhibition at Adelaide. W.A.—Cyclone destroyed nearly the whole pearling fleet off the Ninety-Mile Beach—200 lives lost. Gold discovered at Southern Cross.
First "Colonial" Conference in London. Australasian Naval Defence Force Act passed.
- 1888 N.S.W.—Centennial celebrations. Restrictive legislation against Chinese, imposing poll-tax of £100. Vic.—Second Victorian International Exhibition held at Melbourne. Qld.—Railway communication opened between Sydney and Brisbane.
Conference of Australian Ministers at Sydney to consider question of Chinese immigration. First meeting of the Australasian Association for the Advancement of Science held in Sydney.
- 1889 Qld.—Direct railway communication established between Brisbane and Adelaide. W.A.—Framing of new Constitution. Tas.—University of Tasmania founded.
- 1890 W.A.—Responsible Government granted.
Meeting at Melbourne of Australasian Federation Conference.
- 1891 N.S.W.—Election to Legislative Assembly of 35 Labour members. Arrival of Austrahan Auxiliary Squadron. Cessation of assisted immigration. W.A.—Discovery of gold on the Murchison.
First Federal Convention in Sydney; draft bill framed and adopted.
- 1892 W.A.—Discovery of gold by Messrs. Bayley and Ford at Coolgardie.

- Year.
- 1893 N.S.W.—Departure by the *Royal Tar* of colonists for “New Australia.”
Financial crisis, chiefly affecting the eastern States.
- 1895 N.S.W.—Free-trade tariff. Land and income taxes introduced.
Conference of Premiers on Federation at Hobart.
- 1896 N.S.W.—People’s Federal Convention at Bathurst.
- 1897–8 Sessions of Federal Convention at Adelaide, Sydney and Melbourne.
- 1898 N.S.W.—First surplus of wheat for export.
Draft Federal Constitution Bill submitted to electors in Victoria, New South Wales, South Australia and Tasmania. Requisite statutory number of votes not obtained in New South Wales.
- 1899 First contingent of Australian troops sent to South Africa. Conference of Premiers in Melbourne to consider amendments to Federal Constitution Bill. Referendum—Bill accepted by New South Wales, Victoria, Queensland, South Australia and Tasmania. First Labour Government (Queensland).
- 1900 N.S.W.—Old-age pensions instituted.
Contingents of naval troops sent to China. Commonwealth Constitution Act received Royal Assent, 9th July. Proclamation of Commonwealth signed, 17th September. Mr. (afterwards Sir) Edmund Barton formed first Federal Ministry.
- 1901 Vic.—Old-age pensions instituted.
Proclamation of the Commonwealth at Sydney. First Federal Parliament opened at Melbourne by the Duke of Cornwall and York. Interstate free-trade established.
- 1902 N.S.W.—Disastrous explosion at Mount Kembla Colliery—95 lives lost. W.A.—Opening of pumping station at Northam in connexion with Gold-fields water supply. Completion of Pacific Cable (all-British). First Federal Tariff.
- 1903 W.A.—Coolgardie and Kalgoorlie Water Supply Scheme completed.
Inauguration of the Federal High Court.
- 1905 N.S.W.—Re-introduction of assisted immigration.
- 1906 Wireless telegraphy installed between Queenscliff, Vic., and Devonport, Tas.
Papua taken over by Commonwealth.
- 1907 N.S.W.—Telephone, Sydney to Melbourne, opened. First telephone trunk line service between Capital Cities, i.e., Sydney and Melbourne.
Imperial Conference in London.
- 1908 Canberra chosen as site of Australian Capital. Visit of U.S.A. fleet to Australia.
- 1909 Imperial Defence Conference in London—Commonwealth ordered two destroyers and one first-class cruiser for fleet unit. Visit of Lord Kitchener to report and advise on Commonwealth military defence. Queensland University founded.
- 1910 Referendum on financial relations between the Commonwealth and the States. Penny Postage. Arrival of the *Yarra* and *Paramatta*, first vessels built for the Royal Australian Navy. Australian Notes Act passed and first Commonwealth notes issued. Admiral Sir R. Henderson visited Australia to advise on naval defence.
- 1911 First Federal Census. Transfer of Australian Capital Territory and Northern Territory to Commonwealth. Introduction of compulsory military training. Establishment of penny postage to all parts of British Empire. University of Western Australia founded.
- 1912 Opening of Commonwealth Bank. First payments of Maternity Bonus. First sod turned at Port Augusta of Trans-Australian Railway (Port Augusta to Kalgoorlie).
- 1913 Australian Capital named Canberra and foundation stone laid. Appointment of Interstate Commission.

Year.

- 1914 Visit of General Sir Ian Hamilton to report on military defence scheme. Double dissolution of Federal Parliament. Visit of British Association for the Advancement of Science. Transfer of Norfolk Island to Commonwealth.
European War declared 4th August. Australian Navy transferred to British Navy. Australian offer to equip and furnish 20,000 troops accepted. German possessions in South-West Pacific seized by Australian Naval and Military Expeditionary Force. German cruiser *Emden* destroyed by H.M.A.S. *Sydney* at Cocos Islands, 9th November. First contingent landed in Egypt. Australian and New Zealand Army Corps (A.N.Z.A.C.) formed under Sir William Birdwood.
- 1915 Opening of Broken Hill Proprietary's Ironworks at Newcastle, N.S.W. Navy Department created.
Australian and New Zealand troops landed at Gallipoli, 25th April. Battle of Sari Bair (Lone Pine), 6th-10th August. Evacuation, 18th-20th December. Australian warships with Grand Fleet, in Atlantic, Malaysia, and elsewhere overseas during remainder of war.
- 1916 Purchase of steamships by the Commonwealth.
Australian and New Zealand mounted troops organized in mounted divisions and camel corps, operating thereafter in Egypt, Palestine and Syria. Battle of Romani, 4th August. Other troops with reinforcements organized as four infantry divisions (1st, 2nd, 4th and 5th) with some other units, and transferred to France. Fromelles, 19th July; the Somme, 1st July-18th November (Pozières, Mouquet Farm, Flers). 3rd Division, formed in Australia, landed in France. First proposal for compulsory military service defeated by referendum.
- 1917 National Ministry formed. Kalgoorlie-Port Augusta railway completed.
German withdrawal from Somme; Arras offensive* (Bullecourt, 11th April and 3rd May); Messines, 7th June; Third Battle of Ypres, 1st July-10th November (Menin Road, Polygon Wood, Broodseinde, Passchendaele). Palestine-Gaza, 26th March, 19th April, 31st October (Beersheba). Australian Flying Corps operating with R.F.C. in Palestine and France. Second proposal for compulsory military service defeated by referendum.
- 1918 Population of Australia reached 5,000,000. Australia House (Strand, London) opened by the King.
Five Australian divisions in France formed into army corps, 1st January. Sir William Birdwood succeeded by Sir John Monash, 30th May. Defensive campaign on Somme, 21st March-25th April (Dernancourt, Villers-Bretonneux); Battles of the Lys, 9th-29th April (Hazebrouck); Hamel, 4th July; Battle of Amiens, 8th August; Mont St. Quentin, 31st August; Hindenburg Line, 18th September-5th October. Palestine-Megiddo, 19th September; Damascus, 1st October. Armistice with Germany, 11th November. Repatriation Department created.
- 1919 Mr. Hughes and Mr. Cook represented Australia at Peace Conference. Return of Australian troops. Aerial flight England to Australia by Capt. Sir Ross Smith and Lieut. Sir Keith Smith. Peace Treaty signed at Versailles, 28th June.
- 1920 Visit to Australia of H.R.H. the Prince of Wales. Wholesale prices reached a point more than double the 1914 level.
- 1921 Second Commonwealth Census. Germany's indemnity fixed (Australia's share approximately £63,000,000). Mandate given to Australia over Territory of New Guinea. First direct wireless press message, England to Australia.
- 1922 First lock on River Murray opened at Blanchetown, South Australia. Queensland Legislative Council abolished.
- 1923 First sod turned on the site of Federal Parliament House at Canberra.

- Year.
- 1924 Visit of British cruiser squadron. Directorate of Commonwealth Bank appointed. Australian Loan Council formed.
- 1925 Visit of American fleet. Solar Observatory established at Canberra. Brisbane-Grafton railway joining Sydney and Brisbane by uniform gauge was commenced. Sydney Harbour Bridge commenced.
- 1926 Population of Australia reached 6,000,000. Council for Scientific and Industrial Research established. Imperial Conference. Dominion Status defined.
- 1927 Transfer of Seat of Federal Government from Melbourne to Canberra. New Parliament House opened by H.R.H. the Duke of York. Beam Wireless established.
- 1928 Visit of British Economic Mission to report on the development of Australian resources. Financial agreement of Commonwealth and States; Loan Council reconstituted; State debts to be taken over; Referendum carried, November.
- 1929 Beginning of fall in export prices. Commonwealth Bank empowered to mobilize gold reserves. Substantial export of gold reserves towards end of year.
- 1930 Wireless phone service with other countries inaugurated. Export prices fell to half 1928 level. Cessation of overseas loans. Tariff embargoes and rationing of imports. Visit of Sir Otto Niemeyer, of Bank of England, to discuss financial questions. Heavy export of gold reserves. Exchange Pool formed. £28,000,000 Conversion Loan fully subscribed. Gold bonus granted. Government deficits total nearly £11,000,000. First Australian—Right Hon. Sir Isaac Alfred Isaacs, G.C.M.G., Chief Justice of the High Court—appointed Governor-General of Australia. Telephone trunk line service established between Adelaide and Perth linking up the whole of the mainland States by telephone.
- 1931 Depression continues; Australia substantially off gold standard with exchange rate at 130 in January; 10 per cent. cut in Federal basic wage. First experimental air mail England to Australia and return. New South Wales Savings Bank suspension and subsequent absorption by Commonwealth Bank. Postponement of sinking fund payments on war debt to British Government for two years. Initiation of Premiers' Conference plan to meet the financial situation. Commonwealth Bank Act amended to provide for temporary lower reserve against notes; substantial export of gold reserves. Hoover Moratorium on War Debts. England departs from gold standard in September; depreciation of Australian £1 on Sterling continued. Wheat bounty granted. Commonwealth Bank assumed control of exchange rate and lowered it to 125. Government deficits total £25,370,000, 1930-31.
- 1932 Sydney Harbour Bridge opened. Australian Broadcasting Commission established. New South Wales Government default in interest payments made good by Commonwealth Government; conflict of Commonwealth and New South Wales governments. Lang Ministry dismissed in New South Wales. Emergency restrictions on imports relaxed. Legislation passed enabling note reserve to be held in sterling securities, and subsequent shipping of gold to the United Kingdom. Imperial Economic Conference at Ottawa, with consequential tariff agreements. Sugar Agreement modified. Taxation reductions and assistance to wheat-growers. Government deficits reduced to £19,500,000 for 1931-32.
- 1933 Third Commonwealth Census. Imperial Air-mail "Astraea" arrived. World Economic Conference in London. Australia elected as Member of League of Nations. Secession Referendum (Western Australia). Referendum for reduction and limitation of number of members of Legislative Council (New South Wales). Disarmament Conference in London. Record wheat harvest (213,927,000 bushels). Antarctica and Ashmore and Cartier Islands taken over by the Commonwealth. Government deficits reduced to £4,500,000 for 1932-33.

Year.

- 1934 Visit of H.R.H. the Duke of Gloucester to open Victorian Centenary Celebrations. Goodwill Mission to the East—Leader Rt. Hon. J. G. Latham. New Governors in Victoria and South Australia. Record flight from England to Australia by Messrs. Scott and Black (Centenary Air Race) in 71 hours. Inauguration of England—Australia Air Mail Service.
- 1935 Silver Jubilee of His Majesty King George V. Visit to London for Jubilee Celebrations of the Rt. Hon. J. A. Lyons, Prime Minister. Empire Statistical Conference at Ottawa. Japanese Goodwill Mission to Australia. Meeting of the British Medical Association for the first time in Australia.
- 1936 Death of His Majesty King George V. South Australian Centenary. Trade dispute with Japan. Rise in wheat prices. Joint Commonwealth and State Marketing Schemes invalidated by decision of the Privy Council in the James case. Visit of British experts—Sir Walter Kinnear and Mr. G. H. Ince—to advise on national insurance. Abdication of King Edward VIII.
- 1937 Referendum on Commonwealth control of aviation and marketing defeated on both counts. Coronation of King George VI. Imperial conference in London. New Education Fellowship Conference held in all States. Commonwealth basic wage increased by 5s. per week. Report of the Royal Commission on Monetary and Banking Systems in Australia. Epidemic of Infantile Paralysis mainly in Victoria and Tasmania.
- 1938 New South Wales Sesqui-Centenary Celebrations. Australian Trade Delegation to review Ottawa Agreement. Resumption of nominated assisted migration. New Defence Programme involving expenditure of £63,000,000 over three years; militia forces to be raised to 70,000. National Health and Pensions Insurance Act passed by Commonwealth Parliament. New Trade Treaty with Japan.

OFFICIAL YEAR BOOK

OF THE

COMMONWEALTH OF AUSTRALIA, 1938.

CHAPTER I.

DISCOVERY, COLONIZATION AND FEDERATION OF AUSTRALIA.

§ 1. General.

Previous issues of the Official Year Book, up to and including No. 22, contained in this Chapter some account of the traditional ideas regarding the existence of a "Terra Australis," together with brief details relating to the discovery and annexation of the Australian continent. (It may be noted here that Captain Cook's arrival and landing at Botany Bay took place on the same day, i.e., 29th April, 1770.)

§ 2. The Exploration of Australia.

A fairly complete, though brief, account of the exploration of Australia was given in Year Book No. 2 (pp. 20 to 39), and a summary of the more important facts relating to the subject was embodied in this Chapter in succeeding issues up to and including No. 22.

§ 3. Establishment of the Commonwealth of Australia.

1. **General.**—On the 1st January, 1901, the six colonies (now known as States) and the Northern Territory were federated under the name of the "Commonwealth of Australia." The dates of creation and the areas of its component parts, as determined on the final adjustment of their boundaries, are shown in the following table:—

THE COMMONWEALTH OF AUSTRALIA.—AREA, ETC., OF COMPONENT PARTS.

State.	Year of Formation into Separate Colony.	Present Area in Square Miles.	State.	Year of Formation into Separate Colony.	Present Area in Square Miles.
New South Wales(a)	1786	310,372	Tasmania ..	1825	26,215
Victoria ..	1851	87,884	Northern Territory	1863	523,620
Queensland ..	1859	670,500			
South Australia ..	1834	380,070	Area of the Commonwealth ..	..	2,974,581
Western Australia	1829	975,920			

(a) Including the Australian Capital Territory embracing an area of 912 square miles, and 28 square miles at Jervis Bay. See par. 3, page 2.

2. **Transfer of the Northern Territory to the Commonwealth.**—On the 7th December, 1907, the Commonwealth and the State of South Australia entered into an agreement for the surrender to and acceptance by the Commonwealth of the Northern Territory, subject to approval by the Parliaments of the Commonwealth and the State. This approval was given by the South Australian Parliament under the Northern Territory

Surrender Act 1907 (assented to on the 14th May, 1908), and by the Commonwealth Parliament under the Northern Territory Acceptance Act 1910 (assented to on the 16th November, 1910). The Territory accordingly was transferred to the Commonwealth by proclamation on the 1st January, 1911.

3. **Transfer of the Australian Capital Territory to the Commonwealth.**—On the 18th October, 1909, the Commonwealth and the State of New South Wales entered into an agreement for the surrender to and acceptance by the Commonwealth of an area of 912 square miles as the seat of Government of the Commonwealth. In December, 1909, Acts were passed by the Commonwealth and New South Wales Parliaments approving the agreement, and on the 5th December, 1910, a proclamation was issued vesting the Territory in the Commonwealth on and from the 1st January, 1911. By the Jervis Bay Territory Acceptance Act 1915, an area of 28 square miles at Jervis Bay, surrendered by New South Wales according to an agreement made in 1913, was accepted by the Commonwealth, and was transferred as from 4th September, 1915.

4. **Transfer of British New Guinea or Papua.**—Under the administration of the Commonwealth, but not included in it, is British New Guinea or Papua, finally annexed by the British Government in 1884. This Territory was for a number of years administered by the Queensland Government, but was transferred to the Commonwealth by proclamation on the 1st September, 1906, under the authority of the Papua Act (Commonwealth) of 16th November, 1905. The area of Papua is about 60,540 square miles.

5. **Transfer of Norfolk Island.**—Although administered for many years by the Government of New South Wales, this Island was a separate Crown Colony until 1st July, 1914, when it was transferred to the Commonwealth under the authority of the Norfolk Island Act 1913. The Island is situated in latitude $29^{\circ} 3' 45''$ S. longitude $167^{\circ} 58' 6''$ E., and comprises an area of 8,528 acres.

6. **Territory of New Guinea.**—It was agreed by the Allied and Associated Powers that a mandate should be conferred on Australia for the government of the former German territories and islands situated in latitude between the Equator and 8° S., and in longitude between 141° E. and 159.25° E. The mandate was issued by the League of Nations on 17th December, 1920. The Governor-General of the Commonwealth was authorized to accept the mandate by the New Guinea Act 1920, which also declared the area to be a Territory under the authority of the Commonwealth by the name of the Territory of New Guinea. The Territory comprises about 93,000 square miles, and the administration under the mandate dates from 9th May, 1921.

7. **Nauru.**—In 1910 the Governments of the United Kingdom, Australia and New Zealand entered into an agreement to make provision for the exercise of the mandate conferred on the British Empire for the administration of the island of Nauru, and for the mining of the phosphate deposits thereon. The island is situated in longitude 166° E., 26 miles south of the Equator, and comprises about 5,400 acres. The agreement provided that the administration of the island should be vested in an administrator, the first appointment to be made by the Commonwealth Government, and thereafter in such manner as the three Governments decided. The agreement was approved by the Commonwealth Parliament in the Nauru Island Agreement Act 1910, and a supplementary agreement of 30th May, 1923, giving the Government immediately responsible for the administration greater powers of control over the Administrator, was approved in 1932. The administration under the mandate has operated from 17th December, 1920, and so far the administrators have been appointed by the Commonwealth Government.

8. **Territory of Ashmore and Cartier Islands.**—By Imperial Order in Council dated 23rd July, 1931, Ashmore Islands, known as Middle, East and West Islands, and Cartier Island, situated in the Indian Ocean off the North-west Coast of Australia, were placed under the authority of the Commonwealth. The Islands were accepted by the Commonwealth in the Ashmore and Cartier Islands Acceptance Act 1933 under the name of the Territory of Ashmore and Cartier Islands and were transferred on 10th May, 1934.

9. **Australian Antarctic Territory.**—An Imperial Order in Council, 7th February, 1933, placed under the authority of the Commonwealth the Antarctic Territories, comprising all the islands and territory, other than Adélie Land, situated south of 60° S. latitude, and lying between 160° E. longitude and 45° E. longitude. The Territory was accepted by the Commonwealth under the name of the Australian Antarctic Territory in the Australian Antarctic Territory Acceptance Act 1933.

§ 4. The Constitutions of the States and of the Commonwealth.

1. **General.**—Information regarding the development of the Constitutions of the various Colonies (now States), together with a brief history of the Federal movement in Australia, was embodied in this Chapter in issues of the Official Year Book up to No. 22. In this issue the Constitution of the Commonwealth as at present amended is printed in full, together with the Financial Agreement of 1928 between the Commonwealth and States as affected by later agreements made under the provisions of Section 105A of the Constitution.

2. **Commonwealth Constitution Act.**—The Commonwealth of Australia Constitution Act, 63 and 64 Vict., Chapter 12, namely: "An Act to constitute the Commonwealth of Australia," as amended by the Constitution Alteration (Senate Elections) 1906, the Constitution Alteration (State Debts) 1909, and the Constitution Alteration (State Debts) 1928 is given *in extenso* hereunder.

THE COMMONWEALTH OF AUSTRALIA CONSTITUTION ACT, 63 & 64 VICT., CHAPTER 12.

An Act to constitute the Commonwealth of Australia. [9th July, 1900.]

WHEREAS the people of New South Wales, Victoria, South Australia, Queensland, and Tasmania, humbly relying on the blessing of Almighty God, have agreed to unite in one indissoluble Federal Commonwealth under the Crown of the United Kingdom of Great Britain and Ireland, and under the Constitution hereby established:

And whereas it is expedient to provide for the admission into the Commonwealth of other Australasian Colonies and possessions of the Queen:

Be it therefore enacted by the Queen's Most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:—

1. This Act may be cited as the Commonwealth of Australia Constitution Act.

2. The provisions of this Act referring to the Queen shall extend to Her Majesty's heirs and successors in the sovereignty of the United Kingdom.

3. It shall be lawful for the Queen, with the advice of the Privy Council, to declare by proclamation that, on and after a day therein appointed, not being later than one year after the passing of this Act, the people of New South Wales, Victoria, South Australia, Queensland, and Tasmania, and also, if Her Majesty is satisfied that the people of Western Australia have agreed thereto, of Western Australia, shall be united in a Federal Commonwealth under the name of the Commonwealth of Australia. But the Queen may, at any time after the proclamation, appoint a Governor-General for the Commonwealth.

4. The Commonwealth shall be established, and the Constitution of the Commonwealth shall take effect, on and after the day so appointed. But the Parliaments of the several colonies may at any time after the passing of this Act make any such laws, to come into operation on the day so appointed, as they might have made if the Constitution had taken effect at the passing of this Act.

5. This Act, and all laws made by the Parliament of the Commonwealth under the Constitution, shall be binding on the courts, judges, and people of every State and of every part of the Commonwealth, notwithstanding anything in the laws of any State; and the laws of the Commonwealth shall be in force on all British ships, the Queen's ships of war excepted, whose first port of clearance and whose port of destination are in the Commonwealth.

6. "The Commonwealth" shall mean the Commonwealth of Australia as established under this Act.

"The States" shall mean such of the colonies of New South Wales, New Zealand, Queensland, Tasmania, Victoria, Western Australia, and South Australia, including the northern territory of South Australia, as for the time being are parts of the Commonwealth, and such colonies or territories as may be admitted into or established by the Commonwealth as States: and each of such parts of the Commonwealth shall be called "a State."

"Original States" shall mean such States as are parts of the Commonwealth at its establishment.

7. The Federal Council of Australasia Act, 1885, is hereby repealed, but so as not to affect any laws passed by the Federal Council of Australasia and in force at the establishment of the Commonwealth.

Any such law may be repealed as to any State by the Parliament of the Commonwealth, or as to any colony not being a State by the Parliament thereof.

8. After the passing of this Act the Colonial Boundaries Act, 1895, shall not apply to any colony which becomes a State of the Commonwealth: but the Commonwealth shall be taken to be a self-governing colony for the purposes of that Act.

9. The Constitution of the Commonwealth shall be as follows:—

THE CONSTITUTION.

This Constitution is divided as follows:—

- Chapter I.—The Parliament :
 - Part I.—General :
 - Part II.—The Senate :
 - Part III.—The House of Representatives :
 - Part IV.—Both Houses of the Parliament :
 - Part V.—Powers of the Parliament :
- Chapter II.—The Executive Government :
- Chapter III.—The Judicature :
- Chapter IV.—Finance and Trade :
- Chapter V.—The States :
- Chapter VI.—New States :
- Chapter VII.—Miscellaneous :
- Chapter VIII.—Alteration of the Constitution.
- The Schedule.

CHAPTER I.—THE PARLIAMENT.

PART I.—GENERAL.

1. The legislative power of the Commonwealth shall be vested in a Federal Parliament, which shall consist of the Queen, a Senate, and a House of Representatives, and which is hereinafter called "The Parliament," or "The Parliament of the Commonwealth."

2. A Governor-General appointed by the Queen shall be Her Majesty's representative in the Commonwealth, and shall have and may exercise in the Commonwealth during the Queen's pleasure, but subject to this Constitution, such powers and functions of the Queen as Her Majesty may be pleased to assign to him.

3. There shall be payable to the Queen out of the Consolidated Revenue Fund of the Commonwealth, for the salary of the Governor-General, an annual sum which, until the Parliament otherwise provides, shall be ten thousand pounds.

The salary of a Governor-General shall not be altered during his continuance in office.

4. The provisions of this Constitution relating to the Governor-General extend and apply to the Governor-General for the time being, or such person as the Queen may appoint to administer the Government of the Commonwealth; but no such person shall be entitled to receive any salary from the Commonwealth in respect of any other office during his administration of the Government of the Commonwealth.

5. The Governor-General may appoint such times for holding the sessions of the Parliament as he thinks fit, and may also from time to time, by Proclamation or otherwise, prorogue the Parliament, and may in like manner dissolve the House of Representatives.

After any general election the Parliament shall be summoned to meet not later than thirty days after the day appointed for the return of the writs.

The Parliament shall be summoned to meet not later than six months after the establishment of the Commonwealth.

6. There shall be a session of the Parliament once at least in every year, so that twelve months shall not intervene between the last sitting of the Parliament in one session and its first sitting in the next session.

PART II.—THE SENATE.

7. The Senate shall be composed of senators for each State, directly chosen by the people of the State, voting, until the Parliament otherwise provides, as one electorate.

But until the Parliament of the Commonwealth otherwise provides, the Parliament of the State of Queensland, if that State be an Original State, may make laws dividing the State into divisions and determining the number of senators to be chosen for each division, and in the absence of such provision the State shall be one electorate.

Until the Parliament otherwise provides there shall be six senators for each Original State. The Parliament may make laws increasing or diminishing the number of senators for each State, but so that equal representation of the several Original States shall be maintained and that no Original State shall have less than six senators.

The senators shall be chosen for a term of six years, and the names of the senators chosen for each State shall be certified by the Governor to the Governor-General.

8. The qualification of electors of senators shall be in each State that which is prescribed by this Constitution, or by the Parliament, as the qualification for electors of members of the House of Representatives; but in the choosing of senators each elector shall vote only once.

9. The Parliament of the Commonwealth may make laws prescribing the method of choosing senators, but so that the method shall be uniform for all the States. Subject to any such law, the Parliament of each State may make laws prescribing the method of choosing the senators for that State.

The Parliament of a State may make laws for determining the times and places of elections of senators for the State.

10. Until the Parliament otherwise provides, but subject to this Constitution, the laws in force in each State, for the time being, relating to elections for the more numerous House of the Parliament of the State shall, as nearly as practicable, apply to elections of senators for the State.

11. The Senate may proceed to the despatch of business, notwithstanding the failure of any State to provide for its representation in the Senate.

12. The Governor of any State may cause writs to be issued for elections of senators for the State. In case of the dissolution of the Senate the writs shall be issued within ten days from the proclamation of such dissolution.

13. As soon as may be after the Senate first meets, and after each first meeting of the Senate following a dissolution thereof, the Senate shall divide the Senators chosen for each State into two classes, as nearly equal in number as practicable; and the places of the Senators of the first class shall become vacant at the expiration of [the third year] *three years*,* and the places of those of the second class at the expiration of [the sixth year] *six years*,* from the beginning of their term of service; and afterwards the places of senators shall become vacant at the expiration of six years from the beginning of their term of service.

The election to fill vacant places shall be made [in the year at the expiration of which] *within one year before** the places are to become vacant.

For the purposes of this section the term of service of a senator shall be taken to begin on the first day of [January] *July** following the day of his election, except in the cases of the first election and of the election next after any dissolution of the Senate, when it shall be taken to begin on the first day of [January] *July** preceding the day of his election.

* As amended by section 2 of the Constitution Alteration (Senate Elections) 1906. The words in square brackets have been repealed; amendments are shown in italics.

14. Whenever the number of senators for a State is increased or diminished, the Parliament of the Commonwealth may make such provision for the vacating of the places of senators for the State as it deems necessary to maintain regularity in the rotation.

15. If the place of a Senator becomes vacant before the expiration of his term of service, the Houses of Parliament of the State for which he was chosen shall, sitting and voting together, choose a person to hold the place until the expiration of the term, or until the election of a successor as hereinafter provided, whichever first happens. But if the Houses of Parliament of the State are not in session at the time when the vacancy is notified, the Governor of the State, with the advice of the Executive Council thereof, may appoint a person to hold the place until the expiration of fourteen days after the beginning of the next session of the Parliament of the State, or until the election of a successor, whichever first happens.

At the next general election of members of the House of Representatives, or at the next election of senators for the State, whichever first happens, a successor shall, if the term has not then expired, be chosen to hold the place from the date of his election until the expiration of the term.

The name of any senator so chosen or appointed shall be certified by the Governor of the State to the Governor-General.

16. The qualifications of a senator shall be the same as those of a member of the House of Representatives.

17. The Senate shall, before proceeding to the despatch of any other business, choose a senator to be the President of the Senate; and as often as the office of President becomes vacant the Senate shall again choose a senator to be the President.

The President shall cease to hold his office if he ceases to be a senator. He may be removed from office by a vote of the Senate, or he may resign his office or his seat by writing addressed to the Governor-General.

18. Before or during any absence of the President, the Senate may choose a senator to perform his duties in his absence.

19. A senator may, by writing addressed to the President, or to the Governor-General if there is no President or if the President is absent from the Commonwealth, resign his place, which thereupon shall become vacant.

20. The place of a senator shall become vacant if for two consecutive months of any session of the Parliament he, without the permission of the Senate, fails to attend the Senate.

21. Whenever a vacancy happens in the Senate, the President, or if there is no President or if the President is absent from the Commonwealth the Governor-General, shall notify the same to the Governor of the State in the representation of which the vacancy has happened.

22. Until the Parliament otherwise provides, the presence of at least one-third of the whole number of the senators shall be necessary to constitute a meeting of the Senate for the exercise of its powers.

23. Questions arising in the Senate shall be determined by a majority of votes, and each senator shall have one vote. The President shall in all cases be entitled to a vote; and when the votes are equal the question shall pass in the negative.

PART III.—THE HOUSE OF REPRESENTATIVES.

24. The House of Representatives shall be composed of members directly chosen by the people of the Commonwealth, and the number of such members shall be, as nearly as practicable, twice the number of the senators.

The number of members chosen in the several States shall be in proportion to the respective numbers of their people, and shall, until the Parliament otherwise provides, be determined, whenever necessary, in the following manner:—

- (i) A quota shall be ascertained by dividing the number of the people of the Commonwealth, as shown by the latest statistics of the Commonwealth, by twice the number of the senators;

- (ii) The number of members to be chosen in each State shall be determined by dividing the number of the people of the State, as shown by the latest statistics of the Commonwealth, by the quota; and if on such division there is a remainder greater than one-half of the quota, one more member shall be chosen in the State.

But notwithstanding anything in this section, five members at least shall be chosen in each Original State.

25. For the purposes of the last section, if by the law of any State all persons of any race are disqualified from voting at elections for the more numerous House of the Parliament of the State, then, in reckoning the number of the people of the State or of the Commonwealth, persons of that race resident in that State shall not be counted.

26. Notwithstanding anything in section twenty-four, the number of members to be chosen in each State at the first election shall be as follows :—

New South Wales ..	23	South Australia ..	6
Victoria ..	20	Tasmania ..	5
Queensland ..	8		

Provided that if Western Australia is an Original State, the numbers shall be as follows :—

New South Wales ..	26	South Australia ..	7
Victoria ..	23	Western Australia ..	5
Queensland ..	9	Tasmania ..	5

27. Subject to this Constitution, the Parliament may make laws for increasing or diminishing the number of the members of the House of Representatives.

28. Every House of Representatives shall continue for three years from the first meeting of the House, and no longer, but may be sooner dissolved by the Governor-General.

29. Until the Parliament of the Commonwealth otherwise provides, the Parliament of any State may make laws for determining the divisions in each State for which members of the House of Representatives may be chosen, and the number of members to be chosen for each division. A division shall not be formed out of parts of different States.

In the absence of other provisions, each State shall be one electorate.

30. Until the Parliament otherwise provides, the qualification of electors of members of the House of Representatives shall be in each State that which is prescribed by the law of the State as the qualification of electors of the more numerous House of Parliament of the State; but in the choosing of members each elector shall vote only once.*

31. Until the Parliament otherwise provides, but subject to this Constitution, the laws in force in each State for the time being relating to elections for the more numerous House of the Parliament of the State shall, as nearly as practicable, apply to elections in the State of members of the House of Representatives.

32. The Governor-General in Council may cause writs to be issued for general elections of members of the House of Representatives.

After the first general election, the writs shall be issued within ten days from the expiry of a House of Representatives or from the proclamation of a dissolution thereof.

33. Whenever a vacancy happens in the House of Representatives, the Speaker shall issue his writ for the election of a new member, or if there is no Speaker or if he is absent from the Commonwealth the Governor-General in Council may issue the writ.

34. Until the Parliament otherwise provides, the qualifications of a member of the House of Representatives shall be as follows :—

- (i) He must be of the full age of twenty-one years, and must be an elector entitled to vote at the election of members of the House of Representatives, or a person qualified to become such elector, and must have been for three years at the least a resident within the limits of the Commonwealth as existing at the time when he is chosen :

- (ii) He must be a subject of the Queen, either natural-born or for at least five years naturalized under a law of the United Kingdom, of a colony which has become or becomes a State, or of the Commonwealth, or of a State.

* The franchise qualification was determined by the Commonwealth Franchise Act 1902.

35. The House of Representatives shall, before proceeding to the despatch of any other business, choose a member to be the Speaker of the House, and as often as the office of Speaker becomes vacant the House shall again choose a member to be the Speaker.

The Speaker shall cease to hold his office if he ceases to be a member. He may be removed from office by a vote of the House, or he may resign his office or his seat by writing addressed to the Governor-General.

36. Before or during any absence of the Speaker, the House of Representatives may choose a member to perform his duties in his absence.

37. A member may by writing addressed to the Speaker, or to the Governor-General if there is no Speaker or if the Speaker is absent from the Commonwealth, resign his place, which thereupon shall become vacant.

38. The place of a member shall become vacant if for two consecutive months of any session of the Parliament he, without the permission of the House, fails to attend the House.

39. Until the Parliament otherwise provides, the presence of at least one-third of the whole number of the members of the House of Representatives shall be necessary to constitute a meeting of the House for the exercise of its powers.

40. Questions arising in the House of Representatives shall be determined by a majority of votes other than that of the Speaker. The Speaker shall not vote unless the numbers are equal, and then he shall have a casting vote.

PART IV.—BOTH HOUSES OF THE PARLIAMENT.

41. No adult person who has or acquires a right to vote at elections for the more numerous House of the Parliament of a State shall, while the right continues, be prevented by any law of the Commonwealth from voting at elections for either House of the Parliament of the Commonwealth.

42. Every senator and every member of the House of Representatives shall before taking his seat make and subscribe before the Governor-General, or some person authorized by him, an oath or affirmation of allegiance in the form set forth in the schedule to this Constitution.

43. A member of either House of the Parliament shall be incapable of being chosen or of sitting as a member of the other House.

44. Any person who—

- (i) Is under any acknowledgement of allegiance, obedience, or adherence to a foreign power, or is a subject or a citizen or entitled to the rights or privileges of a subject or a citizen of a foreign power : or
- (ii) Is attainted of treason, or has been convicted and is under sentence, or subject to be sentenced, for any offence punishable under the law of the Commonwealth or of a State by imprisonment for one year or longer : or
- (iii) Is an undischarged bankrupt or insolvent : or
- (iv) Holds any office of profit under the Crown, or any pension payable during the pleasure of the Crown out of any of the revenues of the Commonwealth : or
- (v) Has any direct or indirect pecuniary interest in any agreement with the Public Service of the Commonwealth otherwise than as a member and in common with the other members of an incorporated company consisting of more than twenty-five persons :

shall be incapable of being chosen or of sitting as a senator or a member of the House of Representatives.

But sub-section iv. does not apply to the office of any of the Queen's Ministers of State for the Commonwealth, or of any of the Queen's Ministers for a State, or to the receipt of pay, half-pay, or a pension by any person as an officer or member of the Queen's navy or army, or to the receipt of pay as an officer or member of the naval or military forces of the Commonwealth by any person whose services are not wholly employed by the Commonwealth.

45. If a senator or member of the House of Representatives—

- (i) Becomes subject to any of the disabilities mentioned in the last preceding section : or
- (ii) Takes the benefit, whether by assignment, composition, or otherwise, of any law relating to bankrupt or insolvent debtors : or
- (iii) Directly or indirectly takes or agrees to take any fee or honorarium for services rendered to the Commonwealth, or for services rendered in the Parliament to any person or State :

his place shall thereupon become vacant.

46. Until the Parliament otherwise provides, any person declared by this Constitution to be incapable of sitting as a senator or as a member of the House of Representatives shall, for every day on which he so sits, be liable to pay the sum of one hundred pounds to any person who sues for it in any court of competent jurisdiction.

47. Until the Parliament otherwise provides, any question respecting the qualification of a senator or of a member of the House of Representatives, or respecting a vacancy in either House of the Parliament, and any question of a disputed election to either House, shall be determined by the House in which the question arises.

48. Until the Parliament otherwise provides, each senator and each member of the House of Representatives shall receive an allowance of four hundred pounds a year, to be reckoned from the day on which he takes his seat.*

49. The powers, privileges, and immunities of the Senate and of the House of Representatives, and of the members and the committees of each House, shall be such as are declared by the Parliament, and until declared shall be those of the Commons House of Parliament of the United Kingdom, and of its members and committees, at the establishment of the Commonwealth.

50. Each House of the Parliament may make rules and orders with respect to—

- (i) The mode in which its powers, privileges, and immunities may be exercised and upheld :
- (ii) The order and conduct of its business and proceedings either separately or jointly with the other House.

PART V.—POWERS OF THE PARLIAMENT.†

51. The Parliament shall, subject to this Constitution, have power to make laws for the peace, order, and good government of the Commonwealth with respect to—

- (i) Trade and commerce with other countries, and among the States :
- (ii) Taxation ; but so as not to discriminate between States or parts of States :
- (iii) Bounties on the production or export of goods, but so that such bounties shall be uniform throughout the Commonwealth :
- (iv) Borrowing money on the public credit of the Commonwealth :
- (v) Postal, telegraphic, telephonic, and other like services :
- (vi) The naval and military defence of the Commonwealth and of the several States, and the control of the forces to execute and maintain the laws of the Commonwealth :
- (vii) Lighthouses, lightships, beacons and buoys :
- (viii) Astronomical and meteorological observations :
- (ix) Quarantine :
- (x) Fisheries in Australian waters beyond territorial limits :
- (xi) Census and statistics :
- (xii) Currency, coinage, and legal tender :
- (xiii) Banking, other than State banking ; also State banking extending beyond the limits of the State concerned, the incorporation of banks, and the issue of paper money :

* The Parliamentary allowance was raised to £500 per annum in 1907 and to £1,000 per annum in 1920, when provision was also made for special allowances to the President of the Senate, the Speaker of the House of Representatives, and both the Chairman of Committees and the Opposition Leader in each House. Several reductions under financial emergency legislation reduced the allowance to £750 per annum in 1932, but it was gradually restored to £1,000, the last reduction being removed in May, 1935.

† Particulars of proposed laws which were submitted to referenda are referred to in Chapter III. General Government.

- (xiv) Insurance, other than State insurance ; also State insurance extending beyond the limits of the State concerned :
- (xv) Weights and measures :
- (xvi) Bills of exchange and promissory notes :
- (xvii) Bankruptcy and insolvency :
- (xviii) Copyrights, patents of inventions and designs, and trade marks :
- (xix) Naturalization and aliens :
- (xx) Foreign corporations, and trading or financial corporations formed within the limits of the Commonwealth :
- (xxi) Marriage :
- (xxii) Divorce and matrimonial causes ; and in relation thereto, parental rights, and the custody and guardianship of infants :
- (xxiii) Invalid and old-age pensions :
- (xxiv) The service and execution throughout the Commonwealth of the civil and criminal process and the judgments of the courts of the States :
- (xxv) The recognition throughout the Commonwealth of the laws, the public Acts and records, and the judicial proceedings of the States :
- (xxvi) The people of any race, other than the aboriginal race in any State, for whom it is deemed necessary to make special laws :
- (xxvii) Immigration and emigration :
- (xxviii) The influx of criminals :
- (xxix) External affairs :
- (xxx) The relations of the Commonwealth with the islands of the Pacific :
- (xxxi) The acquisition of property on just terms from any State or person for any purpose in respect of which the Parliament has power to make laws :
- (xxxii) The control of railways with respect to transport for the naval and military purposes of the Commonwealth :
- (xxxiii) The acquisition, with the consent of a State, of any railways of the State on terms arranged between the Commonwealth and the State :
- (xxxiv) Railway construction and extension in any State with the consent of that State :
- (xxxv) Conciliation and arbitration for the prevention and settlement of industrial disputes extending beyond the limits of any one State :
- (xxxvi) Matters in respect of which this Constitution makes provision until the Parliament otherwise provides :
- (xxxvii) Matters referred to the Parliament of the Commonwealth by the Parliament or Parliaments of any State or States, but so that the law shall extend only to States by whose Parliaments the matter is referred, or which afterwards adopt the law :
- (xxxviii) The exercise within the Commonwealth, at the request or with the concurrence of the Parliaments of all the States directly concerned, of any power which can at the establishment of this Constitution be exercised only by the Parliament of the United Kingdom or by the Federal Council of Australasia :
- (xxxix) Matters incidental to the execution of any power vested by this Constitution in the Parliament or in either House thereof, or in the Government of the Commonwealth, or in the Federal Judicature, or in any department or officer of the Commonwealth.

52. The Parliament shall, subject to this Constitution, have exclusive power to make laws for the peace, order, and good government of the Commonwealth with respect to—

- (i) The seat of Government of the Commonwealth, and all places acquired by the Commonwealth for public purposes :
- (ii) Matters relating to any department of the public service the control of which is by this Constitution transferred to the Executive Government of the Commonwealth :
- (iii) Other matters declared by this Constitution to be within the exclusive power of the Parliament.

53. Proposed laws appropriating revenue or moneys, or imposing taxation, shall not originate in the Senate. But a proposed law shall not be taken to appropriate revenue or moneys, or to impose taxation, by reason only of its containing provisions for the imposition or appropriation of fines or other pecuniary penalties, or for the demand or payment or appropriation of fees for licences, or fees for services under the proposed law.

The Senate may not amend proposed laws imposing taxation, or proposed laws appropriating revenue or moneys for the ordinary annual services of the Government.

The Senate may not amend any proposed laws so as to increase any proposed charge or burden on the people.

The Senate may at any stage return to the House of Representatives any proposed law which the Senate may not amend, requesting, by message, the omission or amendment of any items or provisions therein. And the House of Representatives may, if it thinks fit, make any of such omissions or amendments, with or without modifications.

Except as provided in this section, the Senate shall have equal power with the House of Representatives in respect of all proposed laws.

54. The proposed law which appropriates revenue or moneys for the ordinary annual services of the Government shall deal only with such appropriation.

55. Laws imposing taxation shall deal only with the imposition of taxation, and any provisions therein dealing with any other matter shall be of no effect.

Laws imposing taxation, except laws imposing duties of customs or of excise, shall deal with one subject of taxation only; but laws imposing duties of customs shall deal with duties of customs only, and laws imposing duties of excise shall deal with duties of excise only.

56. A vote, resolution, or proposed law for the appropriation of revenue or moneys shall not be passed unless the purpose of the appropriation has in the same session been recommended by message of the Governor-General to the House in which the proposal originated.

57. If the House of Representatives passes any proposed law, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, and if after an interval of three months the House of Representatives, in the same or the next session, again passes the proposed law with or without any amendments which have been made, suggested, or agreed to by the Senate, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, the Governor-General may dissolve the Senate and the House of Representatives simultaneously. But such dissolution shall not take place within six months before the date of the expiry of the House of Representatives by effluxion of time.

If after such dissolution the House of Representatives again passes the proposed law, with or without any amendments which have been made, suggested, or agreed to by the Senate, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, the Governor-General may convene a joint sitting of the members of the Senate and of the House of Representatives.

The members present at the joint sitting may deliberate and shall vote together upon the proposed law as last proposed by the House of Representatives, and upon amendments, if any, which have been made therein by one House and not agreed to by the other, and any such amendments which are affirmed by an absolute majority of the total number of the members of the Senate and House of Representatives shall be taken to have been carried, and if the proposed law, with the amendments, if any, so carried is affirmed by an absolute majority of the total number of members of the Senate and House of Representatives, it shall be taken to have been duly passed by both Houses of the Parliament, and shall be presented to the Governor-General for the Queen's assent.

58. When a proposed law passed by both Houses of the Parliament is presented to the Governor-General for the Queen's assent, he shall declare, according to his discretion, but subject to this Constitution, that he assents in the Queen's name, or that he withholds assent, or that he reserves the law for the Queen's pleasure.

The Governor-General may return to the House in which it originated any proposed law so presented to him, and may transmit therewith any amendments which he may recommend, and the Houses may deal with the recommendation.

59. The Queen may disallow any law within one year from the Governor-General's assent, and such disallowance on being made known by the Governor-General by speech or message to each of the Houses of the Parliament, or by Proclamation, shall annul the law from the day when the disallowance is so made known.

60. A proposed law reserved for the Queen's pleasure shall not have any force unless and until within two years from the day on which it was presented to the Governor-General for the Queen's assent the Governor-General makes known, by speech or message to each of the Houses of the Parliament, or by Proclamation, that it has received the Queen's assent.

CHAPTER II.—THE EXECUTIVE GOVERNMENT.

61. The executive power of the Commonwealth is vested in the Queen and is exercisable by the Governor-General as the Queen's representative, and extends to the execution and maintenance of this Constitution, and of the laws of the Commonwealth.

62. There shall be a Federal Executive Council to advise the Governor-General in the government of the Commonwealth, and the members of the Council shall be chosen and summoned by the Governor-General and sworn as Executive Councillors, and shall hold office during his pleasure.

63. The provisions of this Constitution referring to the Governor-General in Council shall be construed as referring to the Governor-General acting with the advice of the Federal Executive Council.

64. The Governor-General may appoint officers to administer such departments of State of the Commonwealth as the Governor-General in Council may establish.

Such officers shall hold office during the pleasure of the Governor-General. They shall be members of the Federal Executive Council, and shall be the Queen's Ministers of State for the Commonwealth.

After the first general election no Minister of State shall hold office for a longer period than three months unless he is or becomes a senator or a member of the House of Representatives.

65. Until the Parliament otherwise provides, the Ministers of State shall not exceed seven in number, and shall hold such offices as the Parliament prescribes, or, in the absence of provision, as the Governor-General directs.*

66. There shall be payable to the Queen out of the Consolidated Revenue Fund of the Commonwealth, for the salaries of the Ministers of State, an annual sum which until the Parliament otherwise provides, shall not exceed twelve thousand pounds a year.*

67. Until the Parliament otherwise provides, the appointment and removal of all other officers of the Executive Government of the Commonwealth shall be vested in the Governor-General in Council, unless the appointment is delegated by the Governor-General in Council or by a law of the Commonwealth to some other authority.

68. The command in chief of the naval and military forces of the Commonwealth is vested in the Governor-General as the Queen's representative.

69. On a date or dates to be proclaimed by the Governor-General after the establishment of the Commonwealth the following departments of the public service in each State shall become transferred to the Commonwealth :—

Posts, telegraphs, and telephones :	Lighthouses, lightships, beacons, and buoys :
Naval and military defence :	Quarantine.

But the departments of customs and of excise in each State shall become transferred to the Commonwealth on its establishment.

* The Ministers of State were increased in 1915 to eight, in 1917 to nine, and in 1935 to ten. A sum of £1,050 was added to the annual appropriation for Minister's salaries for each additional Minister and £800 per annum was allowed each Minister by the Parliamentary Allowances Act 1920. Reductions under financial emergency legislation reached their maximum in 1932, when Ministers' salaries were reduced by 30 per cent, and their allowance as members by 25 per cent.; the reductions were gradually removed, the final one in May, 1938, by the Parliamentary Salaries Adjustment Act 1938. The latter Act also made provision for an additional allowance of £1,500 per annum to the Prime Minister, and increased the parliamentary allowance to Ministers and holders of parliamentary office from £800 to £1,000 per annum.

70. In respect of matters which, under this Constitution, pass to the Executive Government of the Commonwealth, all powers and functions which at the establishment of the Commonwealth are vested in the Governor of a Colony, or in the Governor of a Colony with the advice of his Executive Council, or in any authority of a Colony, shall vest in the Governor-General, or in the Governor-General in Council, or in the authority exercising similar powers under the Commonwealth, as the case requires.

CHAPTER III.—THE JUDICATURE.

71. The judicial power of the Commonwealth shall be vested in a Federal Supreme Court, to be called the High Court of Australia, and in such other federal courts as the Parliament creates, and in such other courts as it invests with federal jurisdiction. The High Court shall consist of a Chief Justice, and so many other Justices, not less than two, as the Parliament prescribes.

72. The Justices of the High Court and of the other Courts created by the Parliament—

- (i) Shall be appointed by the Governor-General in Council :
- (ii) Shall not be removed except by the Governor-General in Council, on an address from both Houses of the Parliament in the same session, praying for such removal on the ground of proved misbehaviour or incapacity :
- (iii) Shall receive such remuneration as the Parliament may fix; but the remuneration shall not be diminished during their continuance in office.

73. The High Court shall have jurisdiction, with such exception and subject to such regulations as the Parliament prescribes, to hear and determine appeals from all judgments, decrees, orders, and sentences—

- (i) Of any Justice or Justices exercising the original jurisdiction of the High Court;
- (ii) Of any other federal court, or court exercising federal jurisdiction; or of the Supreme Court of any State, or of any other court of any State from which at the establishment of the Commonwealth an appeal lies to the Queen in Council :
- (iii) Of the Inter-State Commission, but as to questions of law only :

and the judgment of the High Court in all such cases shall be final and conclusive.

But no exception or regulation prescribed by the Parliament shall prevent the High Court from hearing and determining any appeal from the Supreme Court of a State in any matter in which at the establishment of the Commonwealth an appeal lies from such Supreme Court to the Queen in Council.

Until the Parliament otherwise provides, the conditions of and restrictions on appeals to the Queen in Council from the Supreme Courts of the several States shall be applicable to appeals from them to the High Court.

74. No appeal shall be permitted to the Queen in Council from a decision of the High Court upon any question, howsoever arising, as to the limits *inter se* of the Constitutional powers of the Commonwealth and those of any State or States, or as to the limits *inter se* of the Constitutional powers of any two or more States, unless the High Court shall certify that the question is one which ought to be determined by Her Majesty in Council.

The High Court may so certify if satisfied that for any special reason the certificate should be granted, and thereupon an appeal shall lie to Her Majesty in Council on the question without further leave.

Except as provided in this section, this Constitution shall not impair any right which the Queen may be pleased to exercise by virtue of Her Royal prerogative to grant special leave of appeal from the High Court to Her Majesty in Council. The Parliament may make laws limiting the matters in which such leave may be asked, but proposed laws containing any such limitation shall be reserved by the Governor-General for Her Majesty's pleasure.

75. In all matters—

- (i) Arising under any treaty :
- (ii) Affecting consuls or other representatives of other countries :

- (iii) In which the Commonwealth, or a person suing or being sued on behalf of the Commonwealth, is a party :
 - (iv) Between States, or between residents of different States, or between a State and a resident of another State :
 - (v) In which a writ of Mandamus or prohibition or an injunction is sought against an officer of the Commonwealth :
- the High Court shall have original jurisdiction.

76. The Parliament may make laws conferring original jurisdiction on the High Court in any matter—

- (i) Arising under this Constitution, or involving its interpretation :
- (ii) Arising under any laws made by the Parliament :
- (iii) Of Admiralty and maritime jurisdiction :
- (iv) Relating to the same subject-matter claimed under the laws of different States.

77. With respect to any of the matters mentioned in the last two sections the Parliament may make laws—

- (i) Defining the jurisdiction of any federal court other than the High Court :
- (ii) Defining the extent to which the jurisdiction of any federal court shall be exclusive of that which belongs to or is invested in the courts of the States :
- (iii) Investing any court of a State with federal jurisdiction.

78. The Parliament may make laws conferring rights to proceed against the Commonwealth or a State in respect of matters within the limits of the judicial power.

79. The federal jurisdiction of any court may be exercised by such number of judges as the Parliament prescribes.

80. The trial on indictment of any offence against any law of the Commonwealth shall be by jury, and every such trial shall be held in the State where the offence was committed, and if the offence was not committed within any State the trial shall be held at such place or places as the Parliament prescribes.

CHAPTER IV.—FINANCE AND TRADE.

81. All revenues or moneys raised or received by the Executive Government of the Commonwealth shall form one Consolidated Revenue Fund, to be appropriated for the purposes of the Commonwealth in the manner and subject to the charges and liabilities imposed by this Constitution.

82. The costs, charges, and expenses incident to the collection, management, and receipt of the Consolidated Revenue Fund shall form the first charge thereon : and the revenue of the Commonwealth shall in the first instance be applied to the payment of the expenditure of the Commonwealth.

83. No money shall be drawn from the Treasury of the Commonwealth except under appropriation made by law.

But until the expiration of one month after the first meeting of the Parliament the Governor-General in Council may draw from the Treasury and expend such moneys as may be necessary for the maintenance of any department transferred to the Commonwealth and for the holding of the first elections for the Parliament.

84. When any department of the public service of a State becomes transferred to the Commonwealth, all officers of the department shall become subject to the control of the Executive Government of the Commonwealth.

Any such officer who is not retained in the service of the Commonwealth shall, unless he is appointed to some other office of equal emolument in the public service of the State, be entitled to receive from the State any pension, gratuity, or other compensation, payable under the law of the State on the abolition of his office.

Any such officer who is retained in the service of the Commonwealth shall preserve all his existing and accruing rights, and shall be entitled to retire from office at the time, and on the pension or retiring allowance, which would be permitted by the law of the State if his service with the Commonwealth were a continuation of his service with the State. Such pension or retiring allowance shall be paid to him by the Commonwealth ;

but the State shall pay to the Commonwealth a part thereof, to be calculated on the proportion which his term of service with the State bears to his whole term of service, and for the purpose of the calculation his salary shall be taken to be that paid to him by the State at the time of the transfer.

Any officer who is, at the establishment of the Commonwealth, in the public service of a State, and who is, by consent of the Governor of the State with the advice of the Executive Council thereof, transferred to the public service of the Commonwealth, shall have the same rights as if he had been an officer of a department transferred to the Commonwealth and were retained in the service of the Commonwealth.

85. When any department of the public service of a State is transferred to the Commonwealth—

- (i) All property of the State of any kind, used exclusively in connexion with the department, shall become vested in the Commonwealth; but, in the case of the departments controlling customs and excise and bounties, for such time only as the Governor-General in Council may declare to be necessary;
- (ii) The Commonwealth may acquire any property of the State, of any kind used, but not exclusively used in connexion with the department; the value thereof shall, if no agreement can be made, be ascertained in, as nearly as may be, the manner in which the value of land, or of an interest in land, taken by the State for public purposes is ascertained under the law of the State in force at the establishment of the Commonwealth;
- (iii) The Commonwealth shall compensate the State for the value of any property passing to the Commonwealth under this section; if no agreement can be made as to the mode of compensation, it shall be determined under laws to be made by the Parliament;
- (iv) The Commonwealth shall, at the date of the transfer, assume the current obligations of the State in respect of the department transferred.

86. On the establishment of the Commonwealth, the collection and control of duties of customs and of excise, and the control of the payment of bounties, shall pass to the Executive Government of the Commonwealth.

87. During a period of ten years after the establishment of the Commonwealth and thereafter until the Parliament otherwise provides, of the net revenue of the Commonwealth from duties of customs and of excise not more than one-fourth shall be applied annually by the Commonwealth towards its expenditure.

The balance shall, in accordance with this Constitution, be paid to the several States, or applied towards the payment of interest on debts of the several States taken over by the Commonwealth.

88. Uniform duties of customs shall be imposed within two years after the establishment of the Commonwealth.

89. Until the imposition of uniform duties of customs—

- (i) The Commonwealth shall credit to each State the revenues collected therein by the Commonwealth.
- (ii) The Commonwealth shall debit to each State—
 - (a) The expenditure therein of the Commonwealth incurred solely for the maintenance or continuance, as at the time of transfer, of any department transferred from the State to the Commonwealth;
 - (b) The proportion of the State, according to the number of its people, in the other expenditure of the Commonwealth.
- (iii) The Commonwealth shall pay to each State month by month the balance (if any) in favour of the State.

90. On the imposition of uniform duties of customs the power of the Parliament to impose duties of customs and of excise, and to grant bounties on the production or export of goods, shall become exclusive.

On the imposition of uniform duties of customs all laws of the several States imposing duties of customs or of excise, or offering bounties on the production or export of goods, shall cease to have effect, but any grant of or agreement for any such bounty lawfully

made by or under the authority of the Government of any State shall be taken to be good if made before the thirtieth day of June, one thousand eight hundred and ninety-eight, and not otherwise.

91. Nothing in this Constitution prohibits a State from granting any aid to or bounty on mining for gold, silver, or other metals, nor from granting, with the consent of both Houses of the Parliament of the Commonwealth expressed by resolution, any aid to or bounty on the production or export of goods.

92. On the imposition of uniform duties of customs, trade, commerce, and intercourse among the States, whether by means of internal carriage or ocean navigation, shall be absolutely free.

But notwithstanding anything in this Constitution, goods imported before the imposition of uniform duties of customs into any State, or into any Colony which, whilst the goods remain therein, becomes a State, shall, on thence passing into another State within two years after the imposition of such duties, be liable to any duty chargeable on the importation of such goods into the Commonwealth, less any duty paid in respect of the goods on their importation.

93. During the first five years after the imposition of uniform duties of customs, and thereafter until the Parliament otherwise provides—

(i) The duties of customs chargeable on goods imported into a State and afterwards passing into another State for consumption, and the duties of excise paid on goods produced or manufactured in a State and afterwards passing into another State for consumption, shall be taken to have been collected not in the former but in the latter State :

(ii) Subject to the last sub-section, the Commonwealth shall credit revenue, debit expenditure, and pay balances to the several States as prescribed for the period preceding the imposition of uniform duties of customs.

94. After five years from the imposition of uniform duties of customs, the Parliament may provide, on such basis as it deems fair, for the monthly payment to the several States of all surplus revenue of the Commonwealth.

95. Notwithstanding anything in this Constitution, the Parliament of the State of Western Australia, if that State be an original State, may, during the first five years after the imposition of uniform duties of customs, impose duties of customs on goods passing into that State and not originally imported from beyond the limits of the Commonwealth : and such duties shall be collected by the Commonwealth.

But any duty so imposed on any goods shall not exceed during the first of such years the duty chargeable on the goods under the law of Western Australia in force at the imposition of uniform duties, and shall not exceed during the second, third, fourth, and fifth of such years respectively, four-fifths, three-fifths, two-fifths, and one-fifth of such latter duty, and all duties imposed under this section shall cease at the expiration of the fifth year after the imposition of uniform duties.

If at any time during the five years the duty on any goods under this section is higher than the duty imposed by the Commonwealth on the importation of the like goods, then such higher duty shall be collected on the goods when imported into Western Australia from beyond the limits of the Commonwealth.

96. During a period of ten years after the establishment of the Commonwealth and thereafter until the Parliament otherwise provides, the Parliament may grant financial assistance to any State on such terms and conditions as the Parliament thinks fit.

97. Until the Parliament otherwise provides, the laws in force in any Colony which has become or becomes a State with respect to the receipt of revenue and the expenditure of money on account of the Government of the Colony, and the review and audit of such receipt and expenditure, shall apply to the receipt of revenue and the expenditure of money on account of the Commonwealth in the State in the same manner as if the Commonwealth, or the Government or an officer of the Commonwealth, were mentioned whenever the Colony, or the Government or an officer of the Colony, is mentioned.

98. The power of the Parliament to make laws with respect to trade and commerce extends to navigation and shipping, and to railways the property of any State.

99. The Commonwealth shall not, by any law or regulation of trade; commerce, or revenue, give preference to one State or any part thereof over another State or any part thereof.

100. The Commonwealth shall not, by any law or regulation of trade or commerce, abridge the right of a State or of the residents therein to the reasonable use of the waters of rivers for conservation or irrigation.

101. There shall be an Inter-State Commission, with such powers of adjudication and administration as the Parliament deems necessary for the execution and maintenance, within the Commonwealth, of the provisions of this Constitution relating to trade and commerce, and of all laws made thereunder.

102. The Parliament may by any law with respect to trade or commerce forbid, as to railways, any preference or discrimination by any State, or by any authority constituted under a State, if such preference or discrimination is undue and unreasonable, or unjust to any State; due regard being had to the financial responsibilities incurred by any State in connexion with the construction and maintenance of its railways. But no preference or discrimination shall, within the meaning of this section, be taken to be undue and unreasonable, or unjust to any State, unless so adjudged by the Inter-State Commission.

103. The members of the Inter-State Commission—

- (i) Shall be appointed by the Governor-General in Council;
- (ii) Shall hold office for seven years, but may be removed within that time by the Governor-General in Council, on an address from both Houses of the Parliament in the same session praying for such removal on the ground of proved misbehaviour or incapacity;
- (iii) Shall receive such remuneration as the Parliament may fix; but such remuneration shall not be diminished during their continuance in office.

104. Nothing in this Constitution shall render unlawful any rate for the carriage of goods upon a railway, the property of a State, if the rate is deemed by the Inter-State Commission to be necessary for the development of the territory of the State, and if the rate applies equally to goods within the State and to goods passing into the State from other States.

105. The Parliament may take over from the States their public debts [as existing at the establishment of the Commonwealth],* or a proportion thereof according to the respective numbers of their people as shown by the latest statistics of the Commonwealth, and may convert, renew, or consolidate such debts, or any part thereof; and the State shall indemnify the Commonwealth in respect of the debts taken over, and thereafter the interest payable in respect of the debts shall be deducted and retained from the portions of the surplus revenue of the Commonwealth payable to the several States, or if such surplus is insufficient, or if there is no surplus, then the deficiency or the whole amount shall be paid by the several States.

105A.† (i) *The Commonwealth may make agreements with the States with respect to the public debts of the States, including—*

- (a) *the taking over of such debts by the Commonwealth;*
- (b) *the management of such debts;*
- (c) *the payment of interest and the provision and management of sinking funds in respect of such debts;*
- (d) *the consolidation, renewal, conversion, and redemption of such debts;*
- (e) *the indemnification of the Commonwealth by the States in respect of debts taken over by the Commonwealth; and*
- (f) *the borrowing of money by the States or by the Commonwealth, or by the Commonwealth for the States.*

(ii) *The Parliament may make laws for validating any such agreement made before the commencement of this section.*

* Under section 2 of the Constitution Alteration (State Debts) 1909, the words in square brackets are omitted.

† Under section 2 of the Constitution Alteration (State Debts) 1928, the Constitution was amended by the insertion of this section.

(iii) *The Parliament may make laws for the carrying out by the parties thereto of any such agreement.*

(iv) *Any such agreement may be varied or rescinded by the parties thereto.*

(v) *Every such agreement and any such variation thereof shall be binding upon the Commonwealth and the States parties thereto notwithstanding anything contained in this Constitution or the Constitution of the several States or in any law of the Parliament of the Commonwealth or of any State.*

(vi) *The powers conferred by this section shall not be construed as being limited in any way by the provisions of section one hundred and five of this Constitution.*

CHAPTER V.—THE STATES.

106. The Constitution of each State of the Commonwealth shall, subject to this Constitution, continue as at the establishment of the Commonwealth, or as at the admission or establishment of the State, as the case may be, until altered in accordance with the Constitution of the State.

107. Every power of the Parliament of a Colony which has become or becomes a State, shall, unless it is by this Constitution exclusively vested in the Parliament of the Commonwealth or withdrawn from the Parliament of the State, continue as at the establishment of the Commonwealth, or as at the admission or establishment of the State, as the case may be.

108. Every law in force in a Colony which has become or becomes a State, and relating to any matter within the powers of the Parliament of the Commonwealth, shall, subject to this Constitution, continue in force in the State; and, until provision is made in that behalf by the Parliament of the Commonwealth, the Parliament of the State shall have such powers of alteration and of repeal in respect of any such law as the Parliament of the Colony had until the Colony became a State.

109. When a law of a State is inconsistent with a law of the Commonwealth, the latter shall prevail, and the former shall, to the extent of the inconsistency, be invalid.

110. The provisions of this Constitution relating to the Governor of a State extend and apply to the Governor for the time being of the State, or other chief executive officer or administrator of the government of the State.

111. The Parliament of a State may surrender any part of the State to the Commonwealth; and upon such surrender, and the acceptance thereof by the Commonwealth, such part of the State shall become subject to the exclusive jurisdiction of the Commonwealth.

112. After uniform duties of customs have been imposed, a State may levy on imports or exports, or on goods passing into or out of the State, such charges as may be necessary for executing the inspection laws of the State; but the net produce of all charges so levied shall be for the use of the Commonwealth; and any such inspection laws may be annulled by the Parliament of the Commonwealth.

113. All fermented, distilled, or other intoxicating liquids passing into any State or remaining therein for use, consumption, sale, or storage, shall be subject to the laws of the State as if such liquids had been produced in the State.

114. A State shall not, without the consent of the Parliament of the Commonwealth, raise or maintain any naval or military force, or impose any tax on property of any kind belonging to the Commonwealth, nor shall the Commonwealth impose any tax on property of any kind belonging to a State.

115. A State shall not coin money, nor make anything but gold and silver coin a legal tender in payment of debts.

116. The Commonwealth shall not make any law for establishing any religion, or for imposing any religious observance, or for prohibiting the free exercise of any religion, and no religious test shall be required as a qualification for any office or public trust under the Commonwealth.

117. A subject of the Queen, resident in any State, shall not be subject in any other State to any disability or discrimination which would not be equally applicable to him if he were a subject of the Queen resident in such other State.

118. Full faith and credit shall be given, throughout the Commonwealth, to the laws, the public Acts and records, and the judicial proceedings of every State.

119. The Commonwealth shall protect every State against invasion and, on the application of the Executive Government of the State, against domestic violence.

120. Every State shall make provision for the detention in its prisons of persons accused or convicted of offences against the laws of the Commonwealth, and for the punishment of persons convicted of such offences, and the Parliament of the Commonwealth may make laws to give effect to this provision.

CHAPTER VI.—NEW STATES.

121. The Parliament may admit to the Commonwealth or establish new States, and may upon such admission or establishment make or impose such terms and conditions, including the extent of representation in either House of the Parliament, as it thinks fit.

122. The Parliament may make laws for the government of any territory surrendered by any State to and accepted by the Commonwealth, or of any territory placed by the Queen under the authority of and accepted by the Commonwealth, or otherwise acquired by the Commonwealth, and may allow the representation of such territory in either House of the Parliament to the extent and on the terms which it thinks fit.

123. The Parliament of the Commonwealth may, with the consent of the Parliament of a State, and the approval of the majority of the electors of the State voting upon the question, increase, diminish, or otherwise alter the limits of the State, upon such terms and conditions as may be agreed on, and may, with the like consent, make provision respecting the effect and operation of any increase or diminution or alteration of territory in relation to any State affected.

124. A new State may be formed by separation of territory from a State, but only with the consent of the Parliament thereof, and a new State may be formed by the union of two or more States or parts of States, but only with the consent of the Parliaments of the States affected.

CHAPTER VII.—MISCELLANEOUS.

125. The seat of Government of the Commonwealth shall be determined by the Parliament, and shall be within territory which shall have been granted to or acquired by the Commonwealth, and shall be vested in and belong to the Commonwealth, and shall be in the State of New South Wales, and be distant not less than one hundred miles from Sydney.

Such territory shall contain an area of not less than one hundred square miles, and such portion thereof as shall consist of Crown lands shall be granted to the Commonwealth without any payment therefor.

The Parliament shall sit at Melbourne until it meet at the seat of Government.

126. The Queen may authorize the Governor-General to appoint any person, or any persons jointly or severally, to be his deputy or deputies within any part of the Commonwealth, and in that capacity to exercise during the pleasure of the Governor-General such powers and functions of the Governor-General as he thinks fit to assign to such deputy or deputies, subject to any limitations expressed or directions given by the Queen; but the appointment of such deputy or deputies shall not affect the exercise by the Governor-General himself of any power or function.

127. In reckoning the numbers of the people of the Commonwealth, or of a State or other part of the Commonwealth, aboriginal natives shall not be counted.

CHAPTER VIII.—ALTERATION OF THE CONSTITUTION.

128. This Constitution shall not be altered except in the following manner:—

The proposed law for the alteration thereof must be passed by an absolute majority of each House of the Parliament, and not less than two nor more than six months after its passage through both Houses the proposed law shall be submitted in each State to the electors qualified to vote for the election of members of the House of Representatives.

But if either House passes any such proposed law by an absolute majority, and the other House rejects or fails to pass it or passes it with any amendment to which the first-mentioned House will not agree, and if after an interval of three months the first-mentioned House in the same or the next session again passes the proposed law by an absolute majority with or without any amendment which has been made or agreed to by the other House, and such other House rejects or fails to pass it or passes it with any amendment to which the first-mentioned House will not agree, the Governor-General may submit the proposed law as last proposed by the first-mentioned House, and either with or without any amendments subsequently agreed to by both Houses, to the electors in each State qualified to vote for the election of the House of Representatives.

When a proposed law is submitted to the electors the vote shall be taken in such manner as the Parliament prescribes. But until the qualification of electors of members of the House of Representatives becomes uniform throughout the Commonwealth, only one-half the electors voting for and against the proposed law shall be counted in any State in which adult suffrage prevails.

And if in a majority of the States a majority of the electors voting approve the proposed law, and if a majority of all the electors voting also approve the proposed law, it shall be presented to the Governor-General for the Queen's assent.

No alteration diminishing the proportionate representation of any State in either House of the Parliament, or the minimum number of representatives of a State in the House of Representatives, or increasing, diminishing, or otherwise altering the limits of the State, or in any manner affecting the provisions of the Constitution in relation thereto, shall become law unless the majority of the electors voting in that State approve the proposed law.

SCHEDULE.

OATH.

I, A.B., do swear that I will be faithful and bear true allegiance to Her Majesty Queen Victoria, Her heirs and successors according to law. SO HELP ME GOD!

AFFIRMATION.

I, A.B., do solemnly and sincerely affirm and declare that I will be faithful and bear true allegiance to Her Majesty Queen Victoria, Her heirs and successors according to law.

(NOTE.—*The name of the King or Queen of the United Kingdom of Great Britain and Ireland for the time being is to be substituted from time to time.*)

3. **The Royal Proclamation.**—The preceding Act received the Royal assent on the 9th July, 1900. This made it lawful to declare that the people of Australia should be united in a Federal Commonwealth. This proclamation, made on the 17th September, 1900, constituted the Commonwealth as from the 1st January, 1901; it reads as follows:—

BY THE QUEEN.

A PROCLAMATION.

(Signed) VICTORIA R.

WHEREAS by an Act of Parliament passed in the Sixty-third and Sixty-fourth Years of Our Reign, intituled "An Act to constitute the Commonwealth of *Australia*," it is enacted that it shall be lawful for the Queen, with the advice of the Privy Council, to declare by Proclamation, that, on and after a day therein appointed, not being later than One year after the passing of this Act, the people of *New South Wales*, *Victoria*, *South Australia*, *Queensland*, and *Tasmania*, and also, if Her Majesty is satisfied that the people of *Western Australia* have agreed thereto, of *Western Australia*, shall be united in a Federal Commonwealth under the name of the Commonwealth of Australia.

And whereas We are satisfied that the people of *Western Australia* have agreed thereto accordingly.

We therefore, by and with the advice of Our Privy Council, have thought fit to issue this Our Royal Proclamation, and We do hereby declare that on and after the First day of *January* One thousand nine hundred and one, the people of *New*

South Wales, Victoria, South Australia, Queensland, Tasmania, and Western Australia shall be united in a Federal Commonwealth under the name of the Commonwealth of Australia.

Given at Our Court at *Balmoral* this Seventeenth day of *September*, in the Year of Our Lord One thousand nine hundred, and in the Sixty-fourth Year of Our Reign.

GOD SAVE THE QUEEN.

§ 5. The Financial Agreement between the Commonwealth and the States.

The original Financial Agreement between the Commonwealth and the States was made on the 12th December, 1927. It was later affected by the following agreements made under the powers conferred by section 105A of the Constitution :—

Debt Conversion Agreement—Made 21st July, 1931.

Debt Conversion Agreement (No. 2)—Made 22nd October, 1931.

Agreement relating to Soldier Settlement Loans—Made 3rd July, 1934.

A further Agreement was made between the Commonwealth and Tasmania only on the 1st July, 1928. This was not an amendment, but was made under the authority of Part III., Clause 3 (l) of the original Agreement.

The original Agreement as affected by the subsequent agreements referred to above is set out below. The Debt Conversion Agreements did not affect the wording of the main Agreement and were in general terms. That part of these Agreements referring to the original Agreement will be found on page 33. The agreement relating to Soldier Settlement Loans affected the original Agreement as regards :—

(a) Part I., Clause 2—Definitions—"Net public debt of a State existing on 30th June, 1927." (See page 22.)

(b) Part I., Clause 3, par. (a)—Constitution of the Australian Loan Council. (See page 23.)

These two amendments have been introduced into the original Agreement. The Agreement between the Commonwealth and Tasmania is referred to in a footnote to Part I., Clause 2—Definitions—in respect of the amount of £3,948,613 which represents the debt of Tasmania to the Commonwealth. (See page 22.)

FINANCIAL AGREEMENT, 1928.

Whereas with a view to making provision for the adjustment of Commonwealth and State financial relations the general principle of a draft scheme was affirmed by a Conference of Commonwealth and State Ministers in Melbourne which commenced on the sixteenth day of June One thousand nine hundred and twenty-seven ;

And whereas permanent effect cannot be given to the proposals contained in the said scheme unless the Constitution of the Commonwealth is altered so as to confer on the Parliament of the Commonwealth power to make laws for carrying out or giving permanent effect to such proposals ;

And whereas pending the submission to the electors of a proposed law for the alteration of the said Constitution as aforesaid and in order to obtain immediately some of the advantages which would result from united action by adoption of the said scheme the Commonwealth and the States have agreed that for the period commencing on the first day of July One thousand nine hundred and twenty-seven and ending on the thirtieth day of June One thousand nine hundred and twenty-nine certain of the proposed provisions of the said scheme shall be temporarily adopted :

Now this Agreement Witnesseth :

PART I.

1. This Agreement shall have no force or effect and shall not be binding on any party unless and until it is approved by the Parliaments of the Commonwealth and of the States.

2. DEFINITIONS.

In this Agreement—

"*Net Public debt of a State existing on 30th June, 1927,*" means in respect of each State the amount of debt set forth hereunder opposite to the name of that State, viz.:—

	£
New South Wales	234,088,501
Victoria	136,949,942
Queensland	101,977,855
South Australia	84,834,364
Western Australia	61,060,675
Tasmania	22,434,060
	<u>641,345,397</u>

The said amount of the net public debt of each State includes the debts of that State secured by—

- (i) Inscribed Stock, including Local Inscribed Stock and Government Inscribed Stock;
 - (ii) Instalment Stock;
 - (iii) Registered Stock;
 - (iv) Funded Stock;
 - (v) Stock payable to bearer;
 - (vi) Bonds, including registered bonds;
 - (vii) Debentures, including registered debentures and instalment debentures;
 - (viii) Treasury Bills not repayable within twelve months from the date of issue; or
 - (ix) Fixed deposit receipts or special deposit receipts for moneys borrowed for other than temporary purposes;
- issued or created by the State or by or on behalf of a Colony the predecessor of the State in respect of moneys borrowed by the Colony or State together with debts of the State to the Commonwealth of the amount set out respectively hereunder opposite to the name of the State so far as those last-mentioned debts are not included by being secured in manner aforesaid:—

	£
New South Wales	12,553,698
Victoria	23,688,269
Queensland	16,082,583
South Australia	18,446,197
Western Australia	16,739,872
Tasmania	3,948,613†
	<u>91,459,232</u>

after deducting therefrom the amount for which the Commonwealth by this Agreement assumes liability under Part III., Clause 4, of this Agreement and the amount of any moneys or securities standing to the credit of a sinking fund, redemption fund, or a fund of a like nature of the State as on 30th June, 1927, and does not include any moneys raised by the State by way of overdraft, fixed deposit, or special deposit for temporary purposes only.

* These amounts have been varied in accordance with the terms of the "Agreement relating to Soldier Settlement Loans" made 3rd July, 1934. The amended figures are—

	£
New South Wales	233,153,779
Victoria	136,348,982
Queensland	101,840,622
South Australia	84,029,376
Western Australia	61,060,675
Tasmania	22,314,180
	<u>638,747,614</u>

† An agreement between the Commonwealth and Tasmania was made under power conferred by Part III., Clause 3 (l) of this Agreement by which the Commonwealth took over as at 1st July, 1928, certain securities of the Tasmanian Sinking Fund to the value of £1,137,720 and thus reduced the debt of £3,948,613 due by the State to the Commonwealth by a like amount. (See Commonwealth Act No. 43 of 1928.)

The said sum of £234,088,501 (being the amount of the debt of New South Wales above-mentioned) comprises the debts referred to in, and has been computed in the manner shown in, the statement signed by representatives of the Commonwealth and of New South Wales.

"Gross Public Debt of a State existing on 30th June, 1927," means in respect of each State the amount of debt set forth hereunder opposite to the name of that State, viz. :—

	£
New South Wales	239,441,363
Victoria	144,844,530
Queensland	105,259,916
South Australia	87,614,005
Western Australia	70,705,913
Tasmania	24,254,688
	762,120,415

The said amount of the gross public debt of each State includes the net public debt of that State together with the amount for which the Commonwealth by this Agreement assumes liability under Part III., Clause (4), of this Agreement and the amount of any moneys or securities standing to the credit of any sinking fund redemption fund or fund of a like nature of the State as on 30th June, 1927.

"*Transferred Properties*" means the properties mentioned or specified in the Schedule of Transferred Properties signed by representatives of the Commonwealth and the States as revised to the 30th June, 1927, being properties which became vested in the Commonwealth pursuant to Section 85 (i) of the Constitution of the Commonwealth.

"*The Loan Council*" means the Australian Loan Council created in pursuance of this Agreement.

"*Bondholder*" means an owner of any—

(i) Inscribed Stock, including Local Inscribed Stock and Government Inscribed Stock;

(ii) Instalment Stock;

(iii) Registered Stock;

(iv) Funded Stock;

(v) Stock payable to bearer;

(vi) Bonds, including registered bonds;

(vii) Debentures including registered debentures and instalment debentures;

(viii) Treasury Bills not repayable within twelve months from the date of issue; or

(ix) Fixed deposit receipts or special deposit receipts for moneys borrowed for other than temporary purposes;

issued or created by a State or by or on behalf of a Colony the predecessor of the State in respect of borrowed moneys but does not include the Commonwealth.

3. AUSTRALIAN LOAN COUNCIL.

(a) * There shall be an Australian Loan Council which shall consist of one representative of the Commonwealth who shall be—

(i) the Prime Minister of the Commonwealth; or

(ii) in the absence of the Prime Minister at any time from a meeting of the Council—
a Minister nominated in writing by the Prime Minister, and

* Paragraph (a) is an amendment effected by the Agreement relating to Soldier Settlement Loans (Commonwealth Act of 1934) replacing the original paragraph (a). The amendment provided that the Financial Agreement shall be read and construed as if the amendments to Clause 3 of Part I. of that Agreement, insofar as they authorize the Prime Minister and the Premier of a State to represent respectively the Commonwealth or a State on the Australian Loan Council, had been incorporated in that Agreement at the date of the making thereof.

One representative of each State who shall be—

- (i) the Premier of that State ; or
- (ii) in the absence of the Premier at any time from a meeting of the Council—
a Minister nominated in writing by the Premier of that State.

Provided that if in the opinion of the Prime Minister or of any Premier of a State, special circumstances exist at any time which make it desirable so to do, the Prime Minister or the Premier, as the case may be, may nominate some other person to represent the Commonwealth or the State (as the case may be) as a member of the Loan Council.

Any nomination of a representative of a State shall be notified in writing by the Premier of the State to the Prime Minister.

(b) The member representing the Commonwealth on the Loan Council shall hold office during the pleasure of the Prime Minister of the Commonwealth and a member representing a State shall hold office during the pleasure of the Premier of the State which the member was appointed to represent.

(c) A decision in which all the members for the time being of the Loan Council concur shall be a unanimous decision of the Loan Council notwithstanding any vacancy then existing in its membership.

(d) A meeting of the Loan Council may at any time be convened by the member representing the Commonwealth, and shall be so convened upon the request of at least three members representing States.

(e) A majority of the members of the Loan Council shall constitute a quorum of the Loan Council for the exercise of its powers at any meeting. Provided that—

(i) a member may at any time appoint in writing a deputy to act in his absence ; and any deputy so appointed may in the absence of the member exercise all the powers and functions of the member and his presence shall be deemed the presence of the member ; and

(ii) an absent member who has not appointed a deputy may vote by letter or by telegram, and in such case that member shall be counted as being present in relation only to the questions on which he has voted.

(f) The Loan Council may make rules of procedure including rules relating to places, times, and notices of meetings, and conduct of business at meetings, and from time to time may alter such rules.

(g) The Commonwealth and each State will from time to time while Part II. of this Agreement is in force, and while Part III. of this Agreement is in force, submit to the Loan Council a programme setting forth the amount it desires to raise by loans for each financial year for purposes other than the conversion, renewal or redemption of existing loans or temporary purposes. Each programme shall state the estimated total amount of such loan expenditure for the year, and the estimated amount of repayments which will be available towards meeting that expenditure. Any revenue deficit to be funded shall be included in such loan programme, and the amount of such deficit shall be set out. Loans for Defence purposes approved by the Parliament of the Commonwealth shall not be included in the Commonwealth's loan programme or be otherwise subject to this agreement.

(h) If the Loan Council decides that the total amount of the loan programme for the year cannot be borrowed at reasonable rates and conditions it shall decide the amount to be borrowed for the year, and may by unanimous decision allocate such amount between the Commonwealth and the States.

(i) If the members of the Loan Council fail to arrive at a unanimous decision under the last preceding sub-clause allocating the amount to be borrowed for any year, the amount to be borrowed for that year shall be allocated as follows :—

(i) The Commonwealth shall, if it so desires, be entitled to have one-fifth or any less proportion of such amount allocated to the Commonwealth ; and

(ii) Each State shall be entitled to have allocated to it a sum (being a portion of the balance of such amount) bearing to the balance of such amount the same proportion which the net loan expenditure of that State in the preceding five years bears to the net loan expenditure of all the States during the same period. Provided that any State may, if it so

desires, have allocated to it a sum less than the sum to which it is entitled under this sub-clause or no sum, and that when a less sum or no sum has been allocated to any State or States in manner aforesaid the amount then remaining available for allocation shall be allocated to the other States in the proportion which the net loan expenditure of each of such other States in the preceding five years bears to the net loan expenditure of all such other States during the same period. For the purposes of this sub-clause net loan expenditure does not include expenditure for the conversion, renewal, or redemption of loans, but means the gross other loan expenditure of a State less any amounts of such expenditure repaid to the State other than moneys repaid to the State in manner stated in Part II., clause 4 (e), or Part III., clause 3 (i), of this Agreement.

(j) If the total amount to be borrowed as aforesaid for any year is to be borrowed by means of more than one loan the Loan Council may by unanimous decision apportion between the Commonwealth and the States the amount to be borrowed by each such loan other than the loan by means of which the balance of the total amount to be borrowed as aforesaid for the year is borrowed.

(k) If the members of the Loan Council fail to arrive at a unanimous decision under the last preceding sub-clause apportioning the amount to be borrowed as aforesaid by any loan the amount to be borrowed by that loan shall be apportioned between the Commonwealth and the States in proportion to the amount then to be borrowed as aforesaid for the Commonwealth and for each State for the year.

(l) The Commonwealth and each State will also from time to time, while Part II. of this Agreement is in force and while Part III. of this Agreement is in force, submit to the Loan Council a statement setting out the amount it requires for each financial year for the conversion, renewal or redemption of existing loans.

(m) If the members of the Loan Council fail to arrive at a unanimous decision on any matter other than the matters referred to in sub-clauses (h) and (j) of clause 3 and sub-clause (b) of clause 4 of this part of this Agreement, the matter shall be determined by a majority of votes of the members.

On every question for decision by the Loan Council the member representing the Commonwealth shall have two votes and a casting vote, and each member representing a State shall have one vote.

(n) A decision of the Loan Council in respect of a matter which the Loan Council is by this Agreement empowered to decide shall be final and binding on all parties to this Agreement.

(o) In this clause the expressions "Prime Minister" and "Premier" include the persons for the time being respectively acting as such.

4. FUTURE BORROWINGS OF COMMONWEALTH AND STATES.

(a) Except in cases where the Loan Council has decided under sub-clause (b) of this clause that moneys shall be borrowed by a State, the Commonwealth, while Part II. or Part III. of this Agreement is in force, shall, subject to the decisions of the Loan Council and subject also to clauses 5 and 6 of this Part of this Agreement, arrange for all borrowings for or on behalf of the Commonwealth or any State, and for all conversions, renewals, redemptions, and consolidations of the Public Debts of the Commonwealth and of the States.

(b) If at any time the Loan Council by unanimous decision so decides, a State may in accordance with the terms of the decision borrow moneys outside Australia in the name of the State, and issue securities for the moneys so borrowed. The Commonwealth shall guarantee that the State will perform all its obligations to bondholders in respect of the moneys so borrowed. For all the purposes of this Agreement, including the making of sinking fund contributions, the moneys so borrowed shall be deemed to be moneys borrowed by the Commonwealth for and on behalf of that State.

(c) If any State after the 30th June, 1927, and before this Agreement has been approved by the Parliaments of the Commonwealth and of the States, has borrowed moneys in the name of the State and issued securities for the moneys so borrowed, such moneys shall for all the purposes of this Agreement, including the making of sinking fund contributions, be deemed to be moneys borrowed by the Commonwealth for and on behalf of that State.

(d) While Part II. or Part III. of this Agreement is in force, moneys shall not be borrowed by the Commonwealth or any State otherwise than in accordance with this Agreement.

5. BORROWING BY STATES.

For any purpose (including the redemption of securities given or issued at any time for moneys previously borrowed or used in manner stated in this clause) a State may, while Part II. or Part III. of this Agreement is in force :—

(a) Subject to any maximum limits decided upon by the Loan Council from time to time for interest, brokerage, discount and other charges, borrow moneys within the State from authorities, bodies, funds or institutions (including Savings Banks) constituted or established under Commonwealth or State law or practice and from the public by counter sales of securities, and

(b) use any public moneys of the State which are available under the laws of the State.

Any securities that are issued for moneys so borrowed or used shall be Commonwealth securities, to be provided by the Commonwealth upon terms approved by the Loan Council.

Where any such borrowing or use is solely for temporary purposes, the provisions of this Agreement, other than this clause, shall not apply.

Where any such borrowing or use is not solely for temporary purposes, and Commonwealth securities are issued in respect thereof, the moneys borrowed or used shall be deemed to be moneys borrowed by the Commonwealth for and on behalf of the State, and may be retained by the State. A State may convert securities given or issued at any time by that State for moneys previously borrowed or used in manner stated in this clause. New securities issued on any such conversion shall be Commonwealth securities to be provided by the Commonwealth upon terms approved by the Loan Council. The amount for which such new securities are issued shall be deemed to be moneys borrowed by the Commonwealth for and on behalf of the State.

If the moneys deemed under this clause to be moneys borrowed by the Commonwealth on behalf of a State, together with the amounts raised by the Commonwealth for and on behalf of the State exceed the total amount of loan moneys decided upon by the Loan Council as the moneys to be raised for and on behalf of the State for the financial year in which the money is deemed to be borrowed, the excess shall, unless the Loan Council otherwise decides, be deemed to be moneys received by the State in the following year on account of its loan programme for that year.

For the purposes of this clause counter sales of securities shall be deemed to mean sales of securities made at the office of the State Treasury, and at such other places as may be decided upon by the Loan Council.

The Commonwealth shall not be under any obligation to make sinking fund contributions in respect of moneys borrowed or used pursuant to this clause to meet a revenue deficit of a State, but the provisions of clause 4 (d) of Part II. and of clause 3 (j) of Part III. of this Agreement shall apply respectively to all moneys borrowed or used for that purpose.

Except in cases where the Loan Council has otherwise decided under sub-clause (b) of clause 4 of Part I. of this Agreement a State shall not have the right to invite loan subscriptions by the issue of a public prospectus.

Notwithstanding anything contained in this Agreement, any State may use for temporary purposes any public moneys of the State which are available under the laws of the State, or may, subject to maximum limits (if any) decided upon by the Loan Council from time to time for interest, brokerage, discount and other charges, borrow money for temporary purposes by way of overdraft, or fixed, special, or other deposit, and the provisions of this Agreement other than this paragraph shall not apply to such moneys.

6. BORROWING BY COMMONWEALTH.

For any purpose (including the redemption of securities given or issued at any time for moneys previously borrowed or used in manner stated in this clause) the Commonwealth may—while Part II. or Part III. of this Agreement is in force—

(a) Subject to any maximum limits decided upon by the Loan Council from time to time for interest, brokerage, discount and other charges, borrow moneys within the Commonwealth from authorities, bodies, funds or institutions (including Savings Banks) constituted or established under Commonwealth or State law or practice and from the public by counter sales of securities, and

(b) use any public moneys of the Commonwealth which are available under the laws of the Commonwealth.

Any securities that are issued for moneys so borrowed or used shall be Commonwealth securities, to be provided by the Commonwealth upon terms approved by the Loan Council.

Where any such borrowing or use is solely for temporary purposes, the provisions of this Agreement, other than this clause, shall not apply.

Where any such borrowing or use is not solely for temporary purposes, and Commonwealth securities are issued in respect thereof, the moneys borrowed or used may be retained by the Commonwealth. The Commonwealth may convert securities given or issued at any time by the Commonwealth for moneys previously borrowed or used in manner stated in this clause. New securities issued on any such conversion shall be Commonwealth securities to be provided by the Commonwealth upon terms approved by the Loan Council.

If the moneys so borrowed or used are not borrowed or used solely for temporary purposes and Commonwealth securities are issued in respect thereof, and such moneys, together with other moneys borrowed by the Commonwealth for and on behalf of the Commonwealth as part of the total amount of loan moneys decided upon by the Loan Council as the moneys to be raised for and on behalf of the Commonwealth for the financial year in which the securities are issued, exceed such total amount the excess shall unless the Loan Council otherwise decides be deemed to be moneys received by the Commonwealth in the following year on account of its loan programme for that year.

For the purposes of this clause counter sales of securities shall be deemed to mean sales of securities made at the offices of the Commonwealth Treasury, and at such other places as may be decided upon by the Loan Council.

Notwithstanding anything contained in this Agreement, the Commonwealth may use for temporary purposes any public moneys of the Commonwealth which are available under the laws of the Commonwealth or may, subject to maximum limits (if any) decided upon by the Loan Council from time to time for interest, brokerage, discount and other charges, borrow money for temporary purposes by way of overdraft, or fixed, special or other deposit, and the provisions of this Agreement other than this paragraph shall not apply to such moneys.

7. PAYMENT OF INTEREST AND SINKING FUNDS.

[Not reprinted.—This section which is obsolete provided for payment of interest and sinking fund on certain loans in the event of Part III. of the Agreement not coming into force.]

PART II.

[Not reprinted.—This Part which is obsolete provided for interest and sinking fund during the period 1st July, 1927, up to the actual taking over of States' debts by the Commonwealth on 1st July, 1929. The intention was to carry out the permanent arrangements proposed in Part III. so far as they were applicable to the interim period.]

PART III.

This Part of this Agreement shall not come into force or be binding upon any party hereto unless before the 1st July, 1929, the Constitution of the Commonwealth has been altered in accordance with the proposals referred to in Part IV. of this Agreement and a law of the Parliament of the Commonwealth has been made thereunder validating this Agreement, but shall come into full force and effect if and when before the said date the Constitution is so altered and this Agreement is so validated.

When this Part of this Agreement comes into force every matter or thing done and payment made under or in pursuance of Part II. of this Agreement shall be deemed, so far as is practicable, to have been done or made under this Part of this Agreement to the same extent as if this Part had then in fact been in force, and all necessary adjustments shall be made in respect of moneys so paid in order to ensure that no party hereto shall be liable for or make double payments in respect of the same matter.

PERMANENT PROVISIONS.

1. TAKING OVER STATES' PUBLIC DEBTS.

Subject to the provisions of this Part of this Agreement the Commonwealth will take over on the 1st July, 1929 :—

- (i) the balance then unpaid of the gross public debt of each State existing on 30th June, 1927; and
- (ii) all other debts of each State existing on the 1st July, 1929, for moneys borrowed by that State which by this Agreement are deemed to be moneys borrowed by the Commonwealth for and on behalf of that State; and will in respect of the debts so taken over assume as between the Commonwealth and the States the liabilities of the States to bondholders.

2. PAYMENT OF INTEREST.

(a) Subject to this clause the Commonwealth will pay to bondholders from time to time interest payable on the Public Debts of the States taken over by the Commonwealth as aforesaid other than debts due by the States to the Commonwealth.

(b) The Commonwealth will in each year during the period of 58 years, commencing on 1st July, 1927, provide by equal monthly instalments the following amounts in respect of each State as shown hereunder towards the interest payable by that State :—

	£
New South Wales	2,917,411
Victoria	2,127,159
Queensland	1,096,235
South Australia	703,816
Western Australia	473,432
Tasmania	266,859
	7,584,912

(c) Each State shall in each year during the same period of 58 years pay to the Commonwealth the excess over the amounts to be provided by the Commonwealth under the last preceding sub-clause necessary to make up as they fall due the interest charges falling due in that year on the public debt of that State taken over by the Commonwealth as aforesaid and then unpaid, and on any moneys borrowed by the Commonwealth on behalf of that State and then unpaid, and after the expiration of the said period each State shall in each year pay to the Commonwealth, as they fall due, the whole of the interest charges on any debt then unpaid and included in the public debt of that State taken over by the Commonwealth as aforesaid, and on any moneys borrowed by the Commonwealth on behalf of that State and then unpaid.

(d) The method by which payments shall be made by a State under sub-clause (c) of this clause shall be arranged from time to time between the Commonwealth and that State.

(e) The rate of interest payable under sub-clause (c) of this clause in respect of moneys borrowed by the Commonwealth on behalf of a State shall be the full rate of interest payable by the Commonwealth in respect of the loan by which such moneys were borrowed or such other rate of interest as may be payable by the State to the Commonwealth under any Agreement made or to be made between the Commonwealth and that State in respect of such moneys and such interest shall be payable by the State for the full term of that loan.

3. SINKING FUNDS.

(a) A sinking fund at the rate of 7s. 6d. per annum for each £100 of the net public debts of the States existing on 30th June, 1927, shall be established in the manner hereinafter set forth.

(b) During the period of fifty-eight years commencing on the 1st July, 1927, the Commonwealth shall pay from revenue annually a sinking fund contribution at the rate of 2s. 6d. for each £100 of the net public debts of the States existing on 30th June, 1927, and each State (other than the State of New South Wales) shall in each year during the said period pay from revenue a sinking fund contribution at the rate of 5s. for each £100 of the net public debt of such State existing on 30th June, 1927. The State of New South Wales during the period of fifty-eight years commencing on the 1st July, 1928, shall in each year pay from revenue a sinking fund contribution at the rate of 5s. for each £100 of the net public debt of that State existing on 30th June, 1927.

(c) Where in respect of any debt included in the gross Public Debt of a State existing at the 30th June, 1927, there is under laws or contracts existing at that date an obligation to provide a sinking fund at a rate in excess of 7s. 6d. per annum for each £100, any amount to be so provided in excess of 7s. 6d. per annum for each £100 shall be provided out of the National Debt Sinking Fund, established under the laws of the Commonwealth. Provided that if any law imposing such an obligation is repealed or is amended so as to reduce the rate of sinking fund to be provided the only amount (if any) to be provided out of the National Debt Sinking Fund pursuant to this sub-clause in respect of that debt shall as from the date of such repeal or amendment be the amount (if any) by which the reduced rate of sinking fund for the time being exceeds 7s. 6d. per annum for each £100.

(d) When a loan is issued for the conversion, renewal, or redemption of any debt of a State included in the gross Public Debt of that State existing on 30th June, 1927, the only sinking fund contributions to be made by the Commonwealth and that State in respect of the debt so converted, renewed, or redeemed shall be sinking fund contributions at the same rate and for the same period and upon the same amount as if such debt had not been converted, renewed, or redeemed.

(e) Subject to sub-clauses (h) and (j) of this clause a sinking fund at the rate of 10s. per annum for each £100 of the amount of each new loan raised by a State or by the Commonwealth for and on behalf of a State after 30th June, 1927, shall be established.

(f) Subject to sub-clause (h) and (j) of this clause, in each year during the period of fifty-three years from the date of the raising after 30th June, 1927, of any new loan by a State or by the Commonwealth for and on behalf of a State the Commonwealth and that State shall each pay from revenue a sinking fund contribution of a sum equal to 5s. for each £100 of the amount of the new loan.

Provided that the period of fifty-three years during which the State of New South Wales shall make sinking fund contributions in respect of new loans raised in the financial year beginning on the 1st July, 1927, shall commence on the 1st July, 1928.

(g) For the purpose of the last two preceding sub-clauses a loan issued after the 30th June, 1927, to meet a revenue deficit which accrued on or before that date shall be deemed to be a new loan, but a loan issued for the conversion, renewal or redemption of a debt shall not be deemed to be a new loan, and where a loan is issued partly for the conversion, renewal, or redemption of a debt and partly for other purposes, so much only of the loan as has been issued for other purposes shall be deemed to be a new loan.

(h) Where it is agreed between the Commonwealth and a State that a loan or any portion of a loan raised after 30th June, 1927, and expended or to be expended upon wasting assets should be redeemed within a shorter period than fifty-three years, the annual sinking fund contributions of the State, in respect of that loan or the portion thereof, shall be increased to an amount which with the sinking fund contributions of the Commonwealth in respect of that loan or the portion thereof will provide for the redemption of that loan or the portion thereof within such shorter period. All sinking fund contributions of the State in respect of that loan or the portion thereof shall cease on the expiration of the shorter period, but the Commonwealth contributions in respect of that loan shall continue for the remainder of the period of fifty-three years from the date of the raising of that loan, and during such remainder of the period the State contributions to the sinking fund in respect of other loans of that State shall be reduced by the amount of the Commonwealth contributions during that remainder of the period in respect of such redeemed loan or the portion thereof. For the purposes of this sub-clause the sinking fund contributions of the Commonwealth and the State shall be deemed to accumulate at the rate of $4\frac{1}{2}$ per centum per annum compounded.

(i) Where loan moneys have been advanced by a State under terms providing for the repayment of such moneys the State shall as and when such moneys are repaid pay such moneys either to the State Loan Fund or to the account or fund from which such moneys were advanced, or to the sinking fund and shall in addition make from revenue its sinking fund contributions in respect of the loan or loans from which the moneys so advanced were provided.

Provided that when loan moneys have been advanced by a State to a Public or Local Authority or body constituted by the State or under the laws of the State and the Authority or body repays such moneys out of its revenue the State may out of moneys so repaid make its sinking fund contributions in respect of the loan moneys so advanced.

(j) In respect of any loan raised after the 30th June, 1927, by a State or by the Commonwealth for and on behalf of a State to meet a revenue deficit accruing after that date no sinking fund contributions shall be payable by the Commonwealth, but that State shall for a period sufficient to provide for the redemption of that loan pay from revenue in each year during such period a sinking fund contribution at a rate of not less than 4 per centum per annum of the amount of that loan. For the purposes of this sub-clause the sinking fund contributions of the State shall be deemed to accumulate at the rate of $4\frac{1}{2}$ per centum per annum compounded.

(k) All sinking fund contributions to be made in pursuance of this part of this Agreement shall be debts payable to the National Debt Commission as follows:—

(i) As regards the net public debt of a State existing on 30th June, 1927—by half-yearly instalments on 30th September and 31st March in each financial year or on such other dates as may be agreed between the Commonwealth and that State.

(ii) As regards loans raised after 30th June, 1927—by equal instalments on the dates on which interest on such loans is payable or on such other dates as may be agreed upon between the Commonwealth and the State concerned.

(l) Subject to the next succeeding sub-clause all moneys and securities standing to the credit of sinking funds, redemption funds and funds of a like nature of a State existing on 30th June, 1929, shall forthwith be transferred by the States to the National Debt Commission. Nothing in this sub-clause contained shall be deemed to limit the power of a State to cancel before 30th June, 1929, any such securities.*

(m) Where the conditions relating to sinking funds, redemption funds, and funds of a like nature as aforesaid held by a State on trust or by trustees under statutory or contractual obligations preclude the transfer of those funds to the National Debt Commission, such funds shall remain under the control of the State or those trustees, and the National Debt Commission will either directly or through the State concerned make all future payments to the State or to those trustees from the sinking fund.

* An Agreement between the Commonwealth and Tasmania was made under power conferred by this Clause whereby the Commonwealth took over as at 1st July, 1928, certain securities of the Tasmanian Sinking Fund to the value of £1,137,720 and thus reduced the debt of £3,948,613 due by the State to the Commonwealth by a like amount. (See Commonwealth Act No. 43 of 1928.)

(n) The sinking funds to be established under this Agreement shall be controlled by the National Debt Commission. The National Debt Commission may arrange with any State to act as its agent in connexion with payments due to bondholders.

(o) Sinking Fund contributions made under this Agreement in respect of the debts of a State and funds of that State transferred to the National Debt Commission under sub-clause (l) of this clause will not be accumulated, but (subject to sub-clause (m) and (p) of this clause) will be applied to the redemption of the public debts of that State and of loans raised by the Commonwealth for and on behalf of that State, or to the purchase of securities issued in respect thereof.

(p) If at any time it is deemed inexpedient by the National Debt Commission to apply sinking funds in the manner set forth in sub-clause (o) of this clause, such funds may be temporarily invested in any securities in which the National Debt Commission is from time to time by law authorized to invest moneys.

(q) When a security issued in respect of a public debt of a State or of a loan raised by the Commonwealth for and on behalf of a State is repurchased or redeemed by the National Debt Commission such security shall be cancelled—

(i) if a repurchased security—on the last day of September, December, March, or June next ensuing after the date of repurchase, or on the date of maturity of the security whichever shall first occur; and

(ii) if a redeemed security—on the date of redemption.

In addition to the sinking fund contributions otherwise payable in respect of that debt or loan the State concerned shall—

(i) as from the date of cancellation of each security and for the full period during which the said sinking fund contributions are payable make from revenue a further sinking fund contribution at the rate of $4\frac{1}{2}$ per centum per annum of the face value of the cancelled security; and

(ii) also pay to the National Debt Commission interest on the face value of each repurchased security at the rate provided by the security from the last date preceding the repurchase upon which interest was payable under the terms of the security up to the date of cancellation of the security.

4. TRANSFERRED PROPERTIES.

It is agreed that all questions between the Commonwealth and the States relating to State properties transferred to the Commonwealth or acquired by the Commonwealth under section 85 of the Constitution shall be settled as follows:—

The States will as from 1st July, 1929, and as between the Commonwealth and the States be completely free and discharged from all liability whether in respect of principal, interest or sinking fund, or otherwise, which liability shall be assumed by the Commonwealth in respect of so much of the public debts of the States bearing interest at the rate of 5 per centum per annum, taken over by the Commonwealth as aforesaid as amounts to the agreed value of transferred properties, namely, £10,924,323, apportioned to the several States as follows:—

						£
New South Wales ..	..	..	..	..	..	4,788,005
Victoria ..	..	..	..	..	..	2,302,862
Queensland ..	..	..	..	..	..	1,560,639
South Australia ..	..	..	..	..	..	1,035,631
Western Australia ..	..	..	..	..	..	736,432
Tasmania ..	..	..	..	..	..	500,754
Total ..	..	..	..	..	..	10,924,323

The particular portion of the public debt of each State in respect of which the States shall become free and discharged from liability shall be determined by the Commonwealth.

Each State will issue to the Commonwealth freehold titles (or, if the laws of any State do not permit of the issue of freehold titles, then titles as near to freehold as the laws of that State will permit) for transferred properties consisting of land or interests in land in that State, and all liability of the Commonwealth to the State in respect of transferred properties shall as from the 1st July, 1929, be extinguished.

The provisions of clauses 2 and 3 of this Part of this Agreement shall not apply to the said amount of £10,924,323.

PART IV.—MISCELLANEOUS.

1. EXPENSES OF LOAN FLOTATION.

Each State shall repay to the Commonwealth all expenses incurred or payments made by the Commonwealth in the performance of this Agreement in relation to the State including the following expenses and payments :—

- (i) Loan flotation charges ;
- (ii) Management charges ;
- (iii) Stamp duties on transfer of securities ;
- (iv) Commission on payment of interest ;
- (v) Expenses incurred in the conversion, renewal, redemption, or consolidation of loans ;
- (vi) Exchange on transference of moneys.

Unless it is otherwise agreed between the Commonwealth and a State the Commonwealth will not do anything in connexion with a loan of that State existing on the 30th June, 1927, or raised thereafter pursuant to this Agreement which if done by that State would be a breach of any now existing agreement by that State with any Bank.

A certificate by the Auditor-General of the Commonwealth stating the amount to be repaid by a State to the Commonwealth and the matter in respect of which the repayment is to be made shall in the event of a dispute be conclusive as to the amount and matter stated.

2. ALTERATION OF THE CONSTITUTION.

The Commonwealth will take the necessary action to submit to the Parliament of the Commonwealth and to the electors proposals for the alteration of the Constitution of the Commonwealth in the following form :—

“105A. (i) The Commonwealth may make agreements with the States with respect to the public debts of the States, including—

- (a) the taking over of such debts by the Commonwealth ;
- (b) the management of such debts ;
- (c) the payment of interest and the provision and management of sinking funds in respect of such debts ;
- (d) the consolidation, renewal, conversion, and redemption of such debts ;
- (e) the indemnification of the Commonwealth by the States in respect of debts taken over by the Commonwealth ; and
- (f) the borrowing of money by the States or by the Commonwealth or by the Commonwealth for the States.

(ii) The Parliament may make laws for validating any such agreement made before the commencement of this section.

(iii) The Parliament may make laws for the carrying out by the parties thereto of any such agreement.

(iv) Any such agreement may be varied or rescinded by the parties thereto.

(v) Every such agreement and any such variation thereof shall be binding upon the Commonwealth and the States parties thereto, notwithstanding anything contained in this Constitution or the constitution of the several States or in any law of the Parliament of the Commonwealth or of any State.

(vi) The powers conferred by this section shall not be construed as being limited in any way by the provisions of section 105 of this Constitution.”

[For result of referendum see Chapter III., § 2.]

3. INDEMNITY.

Each State agrees with the Commonwealth that it will by the faithful performance of its obligations under this Agreement indemnify the Commonwealth against all liabilities whatsoever in respect of the public debt of that State taken over by the Commonwealth as aforesaid (other than the liabilities of the Commonwealth under this Agreement to pay interest and to make sinking fund contributions and under clause 4 of Part III. of this Agreement), and in respect of all loans of that State in respect of which this Agreement provides that sinking fund contributions shall be made.

4. ACCOUNTS.

Separate accounts shall be kept by the Commonwealth for each State in respect of Debt, Interest, and Sinking Funds.

Although the Debt Conversion Agreements already referred to did not affect the wording of the Financial Agreement they contained the following provisions:—

Debt Conversion Agreement—made 21st July, 1931—

“4. So far as the provisions of this Agreement may not be in accordance with any provisions of the Financial Agreement between the parties hereto, dated Twelfth day of December, 1927, the provisions of this Agreement shall prevail.”

Debt Conversion Agreement (No. 2)—22nd October, 1931—

“5. So far as this Agreement may not be in accordance with the provisions of the said Financial Agreement, the provisions of this Agreement shall prevail.”

[*Note re Validity of Act.*—Consequent upon the failure of the State of New South Wales to provide certain interest payments on its public debts in accordance with the Financial Agreement, the Commonwealth Parliament passed a Financial Agreement Enforcement Act (No. 3 of 1932). The State of New South Wales attacked the validity of this Act as being *ultra vires* the Commonwealth Parliament and an infringement of State rights in respect to the appropriation of public moneys for specific services. The High Court by a majority decision of four to two held that this was a valid law and dismissed the action, subsequently refusing leave to appeal to the Privy Council.]

CHAPTER II.

PHYSIOGRAPHY.

§ 1. General Description of Australia.

1. **Geographical Position.**—(i) *General.* The Australian Commonwealth, which includes the island continent of Australia proper and the island of Tasmania, is situated in the Southern Hemisphere, and comprises in all an area of about 2,974,581 square miles, the mainland alone containing about 2,948,306 square miles. Bounded on the west and east by the Indian and Pacific Oceans respectively, it lies between longitudes $113^{\circ} 9'$ E. and $153^{\circ} 39'$ E., while its northern and southern limits are the parallels of latitude $10^{\circ} 41'$ S. and $39^{\circ} 8'$ S., or, including Tasmania, $43^{\circ} 39'$ S. On its north are the Timor and Arafura Seas and Torres Strait—on its south the Southern Ocean and Bass Strait. The extreme points are “Steep Point” on the west, “Cape Byron” on the east, “Cape York” on the north, “Wilson’s Promontory” on the south, or, if Tasmania be included, “South-East Cape.”

(ii) *Tropical and Temperate Regions.* Of the total area of Australia nearly 40 per cent. lies within the tropics. Assuming, as is usual, that the latitude of the Tropic of Capricorn is $23^{\circ} 30'$ S. (its mean value for 1937 was $23^{\circ} 26' 50.70''$), the areas within the tropical and temperate zones are approximately as follows:—

AUSTRALIA—AREAS OF TROPICAL AND TEMPERATE REGIONS.

(STATES AND TERRITORY PARTIALLY WITHIN TROPICS.)

Area.	Queensland.	Western Australia.	Northern Territory.	Total.
	Sq. Miles.	Sq. Miles.	Sq. Miles.	Sq. Miles.
Within Tropical Zone	359,000	364,000	426,320	1,149,320
Within Temperate Zone	311,500	611,920	97,300	1,020,720
Ratio of Tropical part to whole State..	0.535	0.373	0.814.	0.530
Ratio of Temperate part to whole State	0.465	0.627	0.186	0.470

Thus the tropical part is roughly about one-half (0.530) of the three territories mentioned above, or about five-thirteenths of the whole of Australia (0.386).

2. **Area of Australia compared with Areas of other Countries.**—It is not always realized that the area of Australia is almost as great as that of the United States of America, four-fifths of that of Canada, more than one-fifth of the area of the British Empire, nearly three-fourths of the whole area of Europe, and about 25 times as large

as Great Britain and Ireland. This great area, coupled with a limited population, renders the solution of the problem of Australian development a particularly difficult one. The areas of Australia and of certain other countries are given in the following table:

AREA OF AUSTRALIA AND OF OTHER COUNTRIES, *Circa 1936.*

Country.	Area.	Country.	Area.
Continental Divisions—	Sq. miles.	AFRICA—continued.	Sq. miles.
Europe	4,412,000	Angola	488,000
Asia	16,047,000	Union of South Africa ..	472,000
Africa	11,560,000	Egypt	386,000
North and Central America		Tanganyika Territory ..	374,000
and West Indies ..	8,662,000	Abyssinia	347,000
South America ..	7,004,000	Nigeria and Protectorate..	339,000
Australasia and Polynesia	3,402,000	South-West Africa ..	322,000
Total, exclusive of Arctic		Mozambique	298,000
and Antarctic Conts...	51,147,000	Northern Rhodesia ..	288,000
Europe—		Bechuanaland Protectorate	275,000
Soviet Union (Russia) ..	2,310,000	Madagascar	238,000
France	213,000	Kenya Colony and Protec-	
Spain (inc. possessions) ..	194,000	torate	225,000
Germany	182,000	Other	1,385,000
Sweden	173,000	Total	11,560,000
Poland	150,000	North and Central America—	
Finland	150,000	Canada	3,684,000
Norway	125,000	United States of America..	3,027,000
Italy	120,000	Mexico	760,000
Rumania	114,000	Alaska	587,000
Yugoslavia	96,000	Newfoundland and Labra-	
Great Britain and Northern		dor	163,000
Ireland	94,000	Nicaragua	49,000
Other	485,000	Other	392,000
Total	44,412,000	Total	8,662,000
Asia—		South America—	
Soviet Union (Russia) ..	5,360,000	Brazil	3,286,000
China and Dependencies ..	4,287,000	Argentine Republic ..	1,078,000
British India and Adminis-		Bolivia	515,000
tered Territories ..	1,090,000	Peru	482,000
Arabia and Autonomous		Colombia (exc. of Panama)	440,000
States	1,004,000	Venezuela	352,000
Feudatory Indian States ..	712,000	Chile	286,000
Iran	634,000	Paraguay	177,000
Netherlands Indies ..	574,000	Ecuador	119,000
Turkey	285,000	Other	260,000
French Indo-China ..	285,000	Total	7,004,000
Japan and Dependencies..	262,000	Australasia and Polynesia—	
Afghanistan	251,000	Commonwealth of Australia	2,974,581
Siam	200,000	Dutch New Guinea ..	101,000
Other	507,000	New Zealand and Depen-	
Total	16,047,000	dencies	104,015
Africa—		Territory of New Guinea..	93,000
French West Africa ..	1,815,000	Papua	90,540
Anglo-Egyptian Sudan ..	973,000	Other	38,500
Belgian Congo	921,000	Total	3,461,636
French Equatorial Africa	871,000	British Empire	13,355,426
Algeria	858,000		
Libya	685,000		

The figures quoted in the table have been extracted from the *Statistical Year Book of the League of Nations* or the *Statesman's Year Book*.

3. **Areas of Political Subdivisions.**—As already stated, Australia consists of six States and the Northern and Australian Capital Territories. The areas of these, and their proportions of the total of Australia, are shown in the following table :—

AUSTRALIA—AREA OF STATES AND TERRITORIES.

State or Territory.	Area.	Percentage on Total.
	Sq. miles.	%
New South Wales	309,432	10.40
Victoria	87,884	2.96
Queensland	670,500	22.54
South Australia	380,070	12.78
Western Australia	975,920	32.81
Tasmania	26,215	0.88
Northern Territory	523,620	17.60
Australian Capital Territory ..	940	0.03
Total	2,974,581	100.00

4. **Coastal Configuration.**—(i) *General.* There are no striking features in the configuration of the coast; the most remarkable indentations are the Gulf of Carpentaria on the north, and the Great Australian Bight on the south. The Cape York Peninsula on the extreme north is the only other remarkable feature in the outline. In Year Book No. 1, an enumeration of the features of the coast-line of Australia was given (see pp. 60 to 68).

(ii) *Coast-line.* The lengths of coast-line, exclusive of minor indentations, of each State and of the whole continent, and the area per mile of coast-line, are shown in the following table :—

AUSTRALIA—COAST-LINE AND AREA PER MILE THEREOF.

State.	Coast-line.	Area per Mile of Coast-line.	State.	Coast-line.	Area per Mile of Coast-line.
	Miles.	Sq. miles.		Miles.	Sq. miles.
New South Wales(a)	700	443	South Australia	1,540	247
Victoria ..	680	129	Western Australia	4,350	224
Queensland ..	3,000	223	Continent (b) ..	11,310	261
Northern Territory	1,040	503	Tasmania ..	900	29

(a) Including Australian Capital Territory.

(b) Area 2,948,366 square miles.

For the entire Commonwealth of Australia this gives a coast-line of 12,210 miles and an average of 244 square miles for one mile of coast-line. According to Strelbitski, Europe has only 75 square miles of area to each mile of coast-line, and, according to recent figures, England and Wales have only one-third of this, viz., 25 square miles.

(iii) *Historical Significance of Coastal Names.* It is interesting to trace the voyages of some of the early navigators by the names bestowed by them on various coastal features—thus Dutch names are found on various points of the Western Australian coast, in Nuyts' Archipelago, in the Northern Territory, and in the Gulf of Carpentaria; Captain Cook can be followed along the coasts of New South Wales and Queensland; Flinders' track is easily recognized from Sydney southwards, as far as Cape Catastrophe,

by the numerous Lincolnshire names bestowed by him; and the French navigators of the end of the eighteenth and the beginning of the nineteenth century have left their names all along the Western Australian, South Australian and Tasmanian coasts.

5. **Geographical Features of Australia.**—In each of the earlier issues of this Year Book fairly complete information has been given concerning some special geographical element. The nature of this information and its position in the various Year Books can be readily ascertained on reference to the special index following the index to maps and graphs at the end of this work.

6. **Fauna, Flora, Geology and Seismology of Australia.**—Special articles dealing with these features have appeared in previous Year Books, but limits of space naturally preclude their repetition in each volume. As pointed out in 5 *supra*, however, the nature and position of these articles can be readily ascertained from the special index. A reference to Barisal Guns will be found in Vol. IX., p. 56.

§ 2. Climate and Meteorology of Australia.*

1. **Introductory.**—In Year Book No. 3, pp. 79, 80, some account was given of the history of Australian meteorology, including reference to the development of magnetic observations and the equipment for the determination of various climatological records. In Year Book No. 4, pp. 84 and 87, will be found a short sketch of the creation and organization of the Commonwealth Bureau of Meteorology, and a résumé of the subjects dealt with at the Meteorological Conference in 1907.

2. **Meteorological Publications.**—Reference to publications issued by the Central Meteorological Bureau will be found in Official Year Book No. 22, pp. 40, 41. The following publications have since been issued:—Volume of "Results of Rainfall Observations made in Western Australia," for all years of record to 1927; Map of Normal Meteorological Conditions in Australia affecting Aviation; a Paper "A Basis for Seasonal Forecasting", by H. A. Hunt; Bulletin No. 18, "Foreshadowing Monsoonal Rains in Northern Australia"; Bulletin No. 19, "Thunderstorms in Australia"; Bulletin No. 20, "Zones of Relative Physical Comfort in Australia"; a Paper on "Frost Risks and Frost-Forecasting"; Booklet containing Meteorological Data for certain Australian Localities; a volume of "Results of Rainfall Observations made in Tasmania"; and a volume of "Results of Rainfall Observations made in Victoria", (Supplementary volume to 1936).

3. **General Description of Australia.**—A considerable portion (0.530) of three divisions of Australia is north of the tropic of Capricorn—that is to say, within the States of Queensland and Western Australia, and the Northern Territory; no less than 1,149,320 square miles belong to the tropical zone and 1,020,720 to the temperate zone. The whole area of Australia within the temperate zone, however, is 1,825,261 square miles; thus the tropical part is about 0.386, or about five-thirteenths of the whole, or the "temperate" region is half as large again as the "tropical" (more accurately 1.588). By reason of its insular geographical position and the absence of striking physical features, Australia is, on the whole, less subject to extremes of weather than are regions of similar area in other parts of the globe, and latitude for latitude Australia is, on the whole, more temperate.

The altitudes of the surface of Australia range up to a little over 7,300 feet, hence its climate embraces a great many features, from the characteristically tropical to what is essentially alpine, a fact indicated in some measure by the name Australian Alps given to the southern portion of the great Dividing Range.

On the coast, the rainfall is often abundant and the atmosphere moist, but in some portions of the interior it is very limited, and the atmosphere dry. The distribution of forest, therefore, with its climatic influence, is very uneven. In the interior, in places, there are fine belts of trees, but there are large areas also which are treeless, and where the air is hot and parching in summer. Again, on the coast, even so far south as latitude 35°, the vegetation is tropical in its luxuriance, and to some extent also in character. Climatologically, therefore, Australia may be said to present a great variety of features.

* Prepared from data supplied by the Commonwealth Meteorologist, W. S. Watt, Esquire.

4. *Meteorological Divisions.*—(i) *General.* Reference to the divisions adopted by the Commonwealth Meteorologist will be found in Official Year Book No. 22, p. 41.

(ii) *Special Climatological Stations.* The latitudes, longitudes and altitudes of special stations, the climatological features of which are graphically represented hereinafter, are as follows:—

SPECIAL CLIMATOLOGICAL STATIONS—AUSTRALIA.

Locality.	Height above Sea Level.	Latitude. S.	Longitude. E.	Locality.	Height above Sea Level.	Latitude. S.	Longitude. E.
	Feet.	deg. min.	deg. min.		Feet.	deg. min.	deg. min.
Perth ..	197	31 57	115 50	Canberra ..	1,920	35 20	149 15
Adelaide ..	140	34 56	138 35	Darwin ..	97	12 28	130 51
Brisbane ..	137	27 28	153 2	Alice Springs	1,926	23 38	133 37
Sydney ..	138	33 52	151 12	Dubbo ..	870	32 18	148 35
Melbourne ..	115	37 49	144 58	Laverton, W.A.	1,530	28 40	122 23
Hobart ..	177	42 53	147 20	Coolgardie ..	1,389	30 57	121 10

5. *Temperatures.*—(i) *Comparisons with other Countries.* In respect of Australian temperatures generally, it may be pointed out that the mean annual isotherm for 75° Fahrenheit extends in South America and South Africa as far south as latitude 33°, while in Australia it reaches only as far south as latitude 30°, thus showing that, on the whole, Australia has latitude for latitude a more temperate climate than other places in the Southern Hemisphere.

The comparison is even more favourable when the Northern Hemisphere is included, for in the United States the 70° isotherm extends in several of the western States as far north as latitude 41°. In Europe, the same isotherm reaches almost to the southern shores of Spain, passing, however, afterwards along the northern shores of Africa till it reaches the Red Sea, when it bends northward along the eastern shore of the Mediterranean till it reaches Syria. In Asia, nearly the whole of the land area south of latitude 40° N. has a higher temperature than 70°.

The extreme range of temperature is less than 100° over practically the whole of Australia, that figure being only slightly exceeded at a very few places; it is mostly 70° to 90° over inland areas, and somewhat less on the coast. In parts of Asia and North America, the extreme range exceeds 130° and 150° in some localities.

Along the northern shores of Australia the temperatures are very equable. At Darwin, for example, the difference in the means for the hottest and coldest months is only 8.5°, and the extreme readings for the year, or the highest maximum on record and the lowest minimum, show a difference of under 50°.

(ii) *Hottest and Coldest Parts.* A comparison of the temperatures recorded at coast and inland stations shows that, in Australia, as in other continents, the range increases with increasing distance from the coast.

In the interior of Australia, and during exceptionally dry summers, the temperature occasionally reaches or exceeds 120° in the shade, and during the dry winters the major portion of the country to the south of the tropics is subject to ground frosts. The hottest area of the continent is situated in the northern part of Western Australia about the Marble Bar and Nullagine gold-fields, where the maximum shade temperature during the summer sometimes exceeds 100° continuously for days and weeks. The coldest part of Australia is the extreme south-east of New South Wales and extreme east of Victoria—the region of the Australian Alps. Here the temperature seldom, if ever, reaches 100° even in the hottest of seasons, while in winter, readings slightly below zero are occasionally recorded.

Tasmania as a whole enjoys a most moderate and equable range of temperature throughout the year, although occasionally hot winds may cross the Straits and cause the temperature to rise to 100° in the low-lying parts.

(iii) *Monthly Maximum and Minimum Temperatures.* The normal monthly maximum and minimum temperatures can be best shown by means of graphs, which exhibit the nature of the fluctuation of each for all available years. In the diagram herein for nine representative places in Australia, the upper heavy curves show the mean maximum, and the lower heavy curves the mean minimum temperatures based upon daily observations, while the other curves show the humidities.

6. *Humidity.*—After temperature, humidity is the most important element of climate, as regards its effect on human comfort, rainfall supply, and in connexion with engineering problems.

In this publication the *absolute humidity* has been graphically represented in inches of vapour pressure (i.e., that portion of the barometric pressure due to vapour). It is this total quantity of moisture in the air which affects personal comfort, plays an important part in varying the density of the atmosphere, and in heating and refrigerating processes. The more commonly quoted value, called the *relative humidity*, refers to the ratio which the actual moisture content of the air bears to the total amount possible if saturation existed at the given temperature, and is usually quoted as a percentage. The relative humidity is an important factor in all drying operations, but is much less important than the absolute humidity as affecting animal life.

The mean monthly vapour pressure has also been added to the tables of climatological data for the capital cities included herein.

The normal monthly values of vapour pressure, it should be noted, combine to make the annual curve for this element which is comparable with the maximum and minimum temperature curves, but the relative humidities consisting as they do of the extremes for each month do not show the normal annual fluctuation which would be approximately midway between the extremes.

The order of stations in descending values of 9 a.m. vapour pressure is Darwin, Brisbane, Sydney, Perth, Melbourne, Adelaide, Canberra, Hobart and Alice Springs, while the relative humidity diminishes in the order, Sydney, Canberra, Melbourne, Darwin, Hobart, Brisbane, Perth, Adelaide and Alice Springs.

7. *Evaporation.*—(i) *General.* The rate and quantity of evaporation in any territory is influenced by the prevailing temperature, and by atmospheric humidity, pressure and movement. In Australia, the question is of perhaps more than ordinary importance, since in its drier regions water has often to be conserved in "tanks"* and dams. The magnitude of the economic loss by evaporation will be appreciated from the tabular records herein, which show that the yearly amount varies from about 31 inches at Hobart to more than 100 inches in the Central parts of Australia. Over the inland districts of the continent it has been calculated that evaporation equals the rainfall where the annual totals are about 30 inches, the variations above and below this quantity being inverse.

(ii) *Monthly Evaporation Curves.* The diagrams herein showing the mean monthly evaporation in various parts of Australia disclose how characteristically different are the amounts for the several months in different localities.

(iii) *Loss by Evaporation.* In the interior of Australia the possible evaporation is greater than the actual rainfall. Since the loss by evaporation depends largely on the exposed area, tanks and dams so designed that the surface shall be a minimum are advantageous. Further, the more protected from the direct rays of the sun and from winds by means of suitable tree planting, the less will be the loss by evaporation. These matters are naturally of more than ordinary concern in the drier districts of Australia.

8. *Rainfall.*—(i) *General.* The rainfall of any region is determined mainly by the direction and route of the prevailing winds, by the varying temperatures of the earth's surface over which they blow, and by its physiographical features.

Australia lies within the zones of the south-east trades and prevailing westerly winds. The southern limit of the south-east trade strikes the eastern shores at about 30° south latitude, and, with very few exceptions, the heaviest rains of the Australian

* In Australia, artificial storage ponds or reservoirs are called "tanks."

continent are precipitated along the Pacific slopes to the north of that latitude, the varying quantities being more or less regulated by the differences in elevation of the shores and of the chain of mountains upon which the rain-laden winds blow from the New South Wales northern border to Thursday Island. The converse effect is exemplified on the north-west coast of Western Australia, where the prevailing winds blowing from the interior of the continent instead of from the ocean, result in the lightest coastal rain in Australia.

The westerly winds, which skirt the southern shores, are responsible for the reliable, generally light to moderate rains enjoyed by the south-western portion of Western Australia, by the agricultural areas of South Australia, by a great part of Victoria, and by the whole of Tasmania.

(ii) *Distribution of Rainfall.* The average annual rainfall map of Australia herein shows that the heaviest yearly falls—over 50 inches—occur over the coastal region of the Northern Territory, over most of the Cape York Peninsula and coastal districts of Queensland, over many of the coastal areas of New South Wales, and the western parts of Tasmania. A great part of the interior of the continent, stretching from the far west of New South Wales and the south-west of Queensland to the vicinity of Shark Bay in Western Australia, has a very low average rainfall of less than 10 inches a year. Between these two regions of heavy and very low rainfall are the extensive areas which experience useful to good rains, and in the southern and eastern parts of which are found the best country and most of the population and primary production.

(iii) *Factors Determining Occurrence, Intensity and Seasonal Distribution of Rainfall.* Reference has already been made to the frequent rains occurring in the north-eastern coastal districts of Queensland with the prevailing south-east trade winds and to similar rains in the west of Tasmania with the prevailing westerly winds. Other rains in Australia are associated mainly with tropical and southern depressions.

The former chiefly affect the northern, eastern, and to some extent the central parts of the continent and operate in an irregular manner during the warmer half of the year, but principally from December to March. They vary considerably in activity and scope from year to year, occasionally developing into severe storms off the east and north-west coasts. Tropical rainstorms sometimes cover an enormous area, half of the continent on occasions receiving moderate to very heavy falls during a period of a few days. Rain is also experienced, with some regularity, with thunderstorms in tropical areas, specially near the coast. All these tropical rains, however, favour mostly the northern and eastern parts of the area referred to: the other parts further inland receive lighter, less frequent and less reliable rainfall. With the exception of districts near the east coast, where some rain falls in all seasons, the tropical parts of the continent receive useful rains only on rare occasions from May to September.

The southern depressions are most active in the winter—June to August—and early spring months. The rains associated with them are fairly reliable and frequent over Southern Australia and Tasmania, and provide during that period the principal factor in the successful growing of wheat. These depressions also operate with varying activity during the remainder of the year, but the accompanying rains are usually lighter. The southern rains favour chiefly the south-west of Western Australia, the agricultural districts of South Australia, Victoria, Tasmania, and the southern parts of New South Wales. They sometimes extend into the drier regions of the interior, but only infrequently and with irregular rains.

The map showing mean monthly distribution of rainfall over Australia gives information on the amount and occurrence of rain in graphic form.

(iv) *Wettest and Driest Regions.* The wettest known part of Australia is on the north-east coast of Queensland, between Port Douglas and Cardwell, where three stations situated on, or adjacent to, the Johnstone and Russell Rivers have an average annual rainfall of between 142 and 165 inches. The maximum and minimum falls there are:—Goondi, 241.53 in 1894 and 67.88 inches in 1915, or a range of 173.65 inches; Innisfail, 211.24 in 1894 and 69.87 inches in 1902, or a range of 141.37 inches; Harvey Creek, 254.77 in 1921 and 80.47 inches in 1902, or a range of 174.30 inches.

On four occasions more than 200 inches have been recorded at Goondi, the last of these being in 1910, when 204.82 inches were registered. The record at this station covers a period of 51 years.

Harvey Creek, in the shorter period of 30 years, has four times exceeded 200 inches, the total for 1921 being 254.77 inches, and at the South Johnstone Sugar Experiment Station, where a gauge was established eighteen years ago, 202.52 inches were recorded in 1921.

In Tasmania the wettest part is in the West Coast region, the mean annual rainfall at Lake Margaret being 145.25 inches, with a maximum of 175.12 inches in 1924.

The driest known part of the continent is in the Lake Eyre district in South Australia (the only part of the continent below sea level), where the annual average is only 5 inches, and where the fall rarely exceeds 10 inches for the twelve months.

The inland districts of Western Australia were at one time regarded as the driest part of Australia, but authentic observations in recent years over settled districts in the east of that State show that the annual average is from 10 to 12 inches.

(v) *Quantities and Distribution of Rainfall.* The general distribution is best seen from the rainfall map herein, which shows the areas subject to average annual rainfalls lying between certain limits. The areas enjoying varying quantities of rainfall determined from the latest available information are shown in the following table:—

AVERAGE ANNUAL RAINFALL DISTRIBUTION.

Average Annual Rainfall.	N.S.W. (a)	Victoria.	Queens- land.	South Australia	Northern Territory	Western Australia.	Tas- mania. (b)	Total. (b)
	sqr. mls.	sqr. mls.	sqr. mls.	sqr. mls.	sqr. mls.	sqr. mls.	sqr. mls.	sqr. mls.
Under 10 inches	48,749	nil	80,496	310,660	140,500	486,952	nil	1,067,357
10—15 "	78,454	19,270	81,549	36,460	132,780	255,092	nil	603,605
15—20 "	55,762	13,492	111,833	19,940	63,026	94,101	304	358,458
20—25 "	45,140	14,170	143,610	8,620	49,157	44,340	3,844	308,881
25—30 "	30,539	15,579	99,895	3,258	41,608	31,990	3,016	225,885
30—40 "	33,557	14,450	61,963	1,036	37,642	59,520	5,027	213,195
Over 40 "	18,171	10,923	91,154	96	58,907	3,925	11,247	194,423
Total area ..	310,372	87,884	670,500	380,070	523,620	975,920	23,438	2,971,804

(a) Including Australian Capital Territory. (b) Over an area of 2,777 square miles no records are available.

Referring first to the capital cities the records of which are given in the next table, it will be seen that Sydney, with a normal rainfall of 47.53 inches, occupies the chief place; Brisbane, Perth, Melbourne, Hobart, Canberra and Adelaide follow in that order, Adelaide with 21.17 inches being the driest. The extreme range from the wettest to the driest year is greatest at Brisbane (72.09 inches) and least at Adelaide (19.48 inches).

In order to show how the rainfall is distributed throughout the year in various parts of the continent, the figures for representative towns have been selected. (See map.) The figures for Darwin, typical of the Northern Territory, show that nearly the whole of the rainfall occurs there in the summer months, while little or none falls in the middle of the year. The figures for Perth, as representing the south-western part of the continent, are the reverse for while the summer months are dry, the winter ones are very wet. In Melbourne and Hobart the rain is fairly well distributed throughout the twelve months, with a maximum in October for the former, and in November for the latter. The records at Alice Springs and Daly Waters indicate that in the central parts of Australia most of the rain occurs from November to March. In Queensland, the heaviest rains fall in the summer months, but good averages are also maintained during the other seasons in eastern parts.

On the coast of New South Wales, the first six months of the year are the wettest, with a maximum in the autumn; the averages during the last six months are fair, and moderately uniform. Generally it may be said that approximately one-third of the area of the continent, principally in the eastern and northern parts, enjoys an annual average rainfall of from 20 to 50 or more inches, the remaining two-thirds averaging from 5 to 20 inches.

(vi) *Curves of Rainfall and Evaporation.* The relative amounts of rainfall and evaporation at different times through the year are clearly indicated in the graphs herein. Inspection thereof will show how large is the evaporation when water is fully exposed to the direct rays of the sun and to wind.

(vii) *Tables of Rainfall.* The table of rainfall for a long period of years for each of the various Australian capitals affords information as to the variability of the fall in successive years, and the list of the more remarkable falls furnishes information as to what may be expected on particular occasions.

RAINFALL—AUSTRALIAN CAPITAL CITIES.

Year.	CANBERRA.(a)		PERTH.		ADELAIDE.		BRISBANE.		SYDNEY.		MELBOURNE.		HOBART.	
	Amount.	No. of Days.	Amount.	No. of Days.	Amount.	No. of Days.	Amount.	No. of Days.	Amount.	No. of Days.	Amount.	No. of Days.	Amount.	No. of Days.
	in.		in.		in.		in.		in.		in.		in.	
1902 ..	..	..	27.06	93	16.02	123	16.17	87	43.07	180	23.08	102	21.85	150
3 ..	..	..	35.69	140	25.47	134	49.27	136	38.62	173	28.43	130	25.86	139
4 ..	..	..	34.35	125	20.31	117	33.23	124	45.93	158	29.72	128	22.41	130
5 ..	..	..	34.61	116	22.28	131	36.76	108	35.03	145	25.64	129	32.09	168
6 ..	..	..	32.37	121	26.51	127	42.85	125	31.89	160	22.29	114	23.31	155
7 ..	..	..	40.12	132	17.78	125	31.46	119	31.32	132	22.26	102	25.92	160
8 ..	..	..	30.52	106	24.56	125	44.01	125	45.65	167	17.72	130	16.50	148
9 ..	..	..	39.11	107	27.69	138	34.06	111	32.45	177	25.86	171	27.29	170
1910 ..	..	..	37.02	135	24.62	116	49.00	133	46.91	160	24.61	167	25.22	205
11 ..	..	..	23.38	108	15.99	127	35.21	128	50.24	155	36.61	168	26.78	193
12 ..	19.27	76	27.85	123	19.57	116	41.30	114	47.51	172	20.37	157	23.14	181
13 ..	16.38	71	38.28	141	18.16	102	40.81	115	57.70	141	21.17	157	19.36	165
14 ..	18.49	81	20.21	128	11.39	91	33.99	141	56.42	149	18.57	129	15.42	154
15 ..	22.31	87	43.61	164	19.38	117	25.66	93	34.83	117	20.95	167	20.91	196
16 ..	31.26	119	35.16	128	28.16	142	52.80	136	44.91	161	38.04	170	43.39	203
17 ..	29.70	144	45.64	146	28.90	153	40.92	127	52.40	151	30.57	171	30.62	214
18 ..	18.27	95	39.58	138	17.41	102	24.95	121	42.99	149	27.13	160	26.04	179
19 ..	16.31	85	30.66	120	17.21	108	19.36	96	58.71	152	24.89	141	22.48	153
20 ..	29.30	107	40.35	124	26.70	119	39.72	122	43.42	159	28.27	162	18.00	182
21 ..	..	..	41.09	135	22.64	100	54.31	167	43.34	140	29.76	154	18.04	159
22 ..	..	..	31.86	135	23.20	117	35.82	109	39.35	136	25.02	151	28.27	189
23 ..	..	..	44.47	134	29.79	139	23.27	93	37.01	123	22.64	158	32.93	198
24 ..	25.95	68	33.79	119	23.44	143	41.08	114	37.01	136	36.48	171	28.76	197
25 ..	33.71	59	31.41	126	21.91	118	53.10	139	50.35	145	17.57	144	22.40	171
26 ..	20.53	97	49.22	167	22.20	116	30.82	111	37.07	127	20.81	149	25.79	187
27 ..	21.40	83	36.59	133	16.92	101	62.08	130	48.56	138	17.98	135	20.02	183
28 ..	17.82	96	44.88	140	19.43	107	52.64	145	40.07	130	24.09	151	30.23	205
29 ..	22.34	88	36.77	172	17.51	119	39.78	118	57.90	129	28.81	168	26.55	194
30 ..	16.52	86	39.80	129	18.65	116	41.22	144	44.47	141	25.41	145	19.38	152
31 ..	24.25	105	39.18	118	22.26	146	66.72	136	49.22	153	28.63	164	27.17	179
32 ..	19.13	107	39.40	107	25.04	141	24.79	97	37.47	146	31.08	179	30.29	155
33 ..	20.30	88	32.47	116	22.12	130	49.71	118	42.71	153	22.28	136	23.18	173
34 ..	35.89	118	40.61	120	20.24	125	54.26	117	64.91	183	33.53	157	23.17	194
35 ..	24.40	102	32.28	129	23.45	140	34.64	111	30.97	131	29.98	183	32.22	196
36 ..	29.49	121	30.64	118	19.34	121	21.77	101	30.22	130	24.30	187	19.60	178
37 ..	22.50	93	35.28	120	23.01	128	34.79	113	52.00	157	21.45	144	20.65	161
Average	23.28	95	31.81	122	21.17	124	44.77	127	47.53	152	26.13	140	23.97	153
No. of Years	23	23	62	62	99	99	83	78	98	98	94	82	95	94

(a) Records commenced in 1912; are not available for the years 1921 to 1923.

NOTE.—The above average rainfall figures for Brisbane, Sydney and Melbourne differ slightly from the mean annual falls given in the Climatological Tables and on page 54, which are for a lesser number of years. Annual totals from 1860 to 1901 inclusive will be found in Official Year Book No. 15, page 53.

9. **Remarkable Falls of Rain.**—The following are the most remarkable falls of rain in the various States and in the Northern Territory which have occurred within a period of twenty-four hours. For other very heavy falls at various localities reference may be made to Official Year Book No. 14, pp. 60 to 64, No. 22, pp. 46 to 48 and No. 29, pp. 43, 44 and 51 :—

HEAVY RAINFALLS—NEW SOUTH WALES, UP TO 1937, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		in.			in.
Broger's Creek ..	14 Feb., 1898	20.05	South Head (near Sydney) ..	16 Oct., 1844	20.41
" " ..	13 Jan., 1911	20.83	Towamba ..	5 Mar., 1893	20.00
Cordeaux River ..	14 Feb., 1898	22.58	Viaduct Creek ..	15 " 1936	20.00
Morpeth ..	9 Mar., 1893	21.52			

HEAVY RAINFALLS—QUEENSLAND, UP TO 1937, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		in.			in.
Babinda (Cairns) ..	2 Mar., 1935	24.14	Mackay ..	21 Jan., 1918a	24.70
Buderim Mountain ..	11 Jan., 1898	26.20	Macnade Mill ..	6 " 1901	23.33
Crohamhurst (Blackall Range) ..	2 Feb., 1893	35.71	Plane Creek (Mackay) ..	26 Feb., 1913	27.73
Deeral ..	2 Mar., 1935	27.60	Port Douglas ..	1 Apr., 1911	31.53
Goondi ..	30 Jan., 1913	24.10	Tully ..	19 Jan., 1932	27.20
Harvey Creek ..	3 " 1911	27.75	Woodlands (Yepp'n) ..	31 Jan., 1893	23.07
Kuranda (Cairns) ..	2 Apr., 1911	28.80	Yarrabah ..	2 Apr., 1911	30.65

(a) 37½ hours.

HEAVY RAINFALLS—WESTERN AUSTRALIA, UP TO 1937, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		in.			in.
Balla Balla ..	21 Mar., 1899	14.40	Roebuck Plains ..	5 Jan., 1917	14.01
Boodarie ..	21 Jan., 1896	14.53	" " ..	6 " 1917	22.36
Broome ..	6 " 1917	14.00	Thangoo ..	17-19 Feb., '06	24.18
Derby ..	7 Jan., 1917	16.47	Whim Creek ..	3 Apr., 1898	29.41
Fortescue ..	3 May, 1890	23.36	Winderrie ..	17 Jan., 1923	14.23
Pilbara ..	2 Apr., 1898	14.04			

HEAVY RAINFALLS—NORTHERN TERRITORY, UP TO 1937, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		in.			in.
Bathurst Island ..	7 Apr., 1925	11.85	Brook's Creek ..	24 Dec., 1915	14.33
Mission ..	6 Mar., 1935	16.50	Cape Don ..	13 Jan., 1934	13.58
Birrimbah ..	14 " 1899	14.00	Darwin ..	7 Dec., 1915	11.67
Borrooloola ..					

HEAVY RAINFALLS—SOUTH AUSTRALIA, UP TO 1937, INCLUSIVE.

Name of Town or Locality.	Date.	Amount.
Wilmington ..		in.
	28 Feb., 1921 ..	3.97
	1 Mar., 1921 ..	7.12

HEAVY RAINFALLS—VICTORIA, UP TO 1937, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		in.			in.
Apollo Bay ..	28 Mar., 1932	11.08	Mt. Buffalo ..	6 June, 1917	8.53
Cann River ..	27 Feb., 1919	9.56	Murrungowar ..	10 July, 1932	14.05
Cunningham ..	26 Dec., 1935	8.50	Olinda ..	1 Dec., 1934	9.10
Hazel Park ..	1 Dec., 1934	10.50	Tambo Crossing ..	13 July, 1923	8.89
Kalorama ..	1 " "	10.05	Tonghi Creek ..	27 Feb., 1919	9.90
Korumburra ..	1 " "	8.51			

HEAVY RAINFALLS—TASMANIA, UP TO 1937, INCLUSIVE.

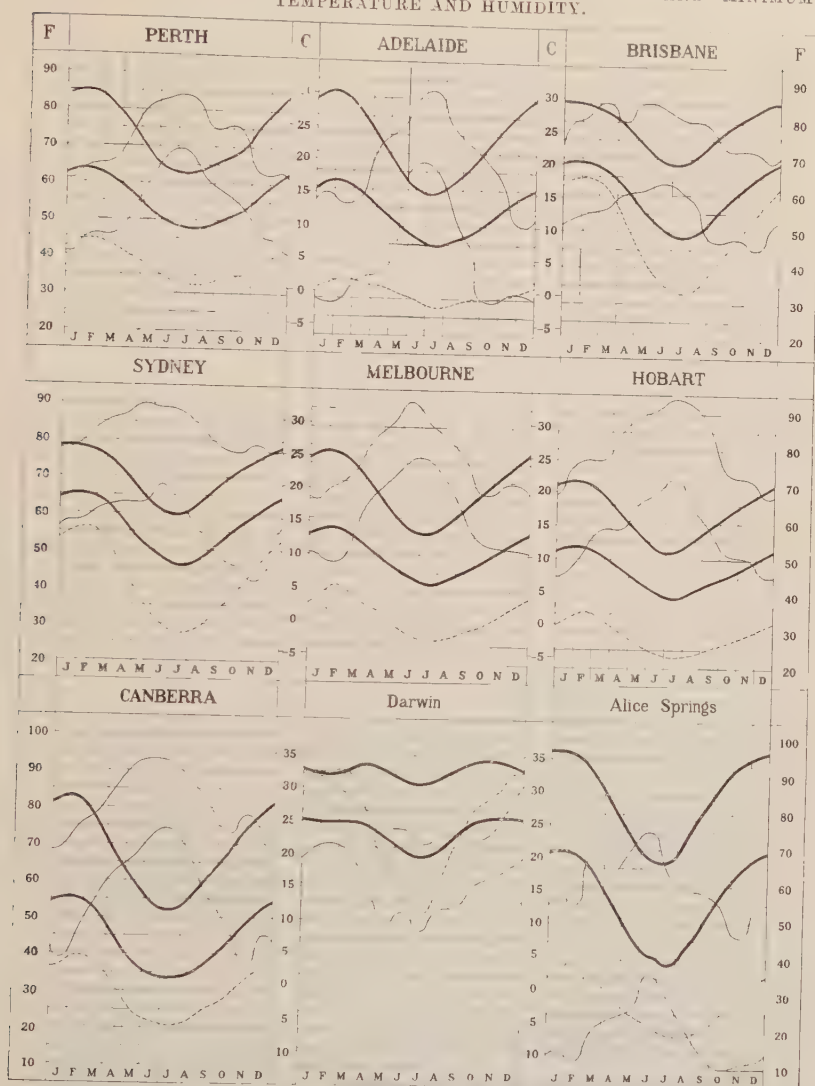
Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		in.			in.
Cullenswood ..	5 Apr., 1929	11.12	Riana ..	5 Apr., 1929	11.08
Gould's Country ..	8-10 Mar., '11	15.33	The Springs ..	30-31 Jan., '10	10.75
Lottah ..	8-10 Mar., '11	18.10	Triabunna ..	5 June, 1923	10.20
Mathinna ..	5 Apr., 1929	13.25			

HEAVY RAINFALLS—AUSTRALIAN CAPITAL TERRITORY, UP TO 1937, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		in.			in.
Canberra ..	27 May, 1925	6.84	Uriarra ..	27 May, 1925	6.57
Cotter Junction ..	" "	7.13			

10. **Snowfall.**—Light snow has been known to fall occasionally as far north as latitude 31° S., and from the western to the eastern shores of the continent. During exceptional seasons, it has fallen simultaneously over two-thirds of the State of New South Wales, and has extended at times along the whole of the Great Dividing Range, from its southern extremity in Victoria as far north as Toowoomba in Queensland. During the winter, for several months, snow covers the ground to a great extent on the

AVERAGE ANNUAL FLUCTUATIONS OF NORMAL MAXIMUM AND MINIMUM
TEMPERATURE AND HUMIDITY.



EXPLANATION.—The upper and lower heavy lines in each graph represent the mean maximum and mean minimum temperatures respectively. The Fahrenheit temperature scales are shown on the outer edge of the sheet under "F" and the centigrade scales in the two inner columns under "C."

The broken line shows the normal absolute humidity in the form of g a.m. vapour pressures for which the figures in the outer "F" columns represent hundredths of an inch of barometric pressure.

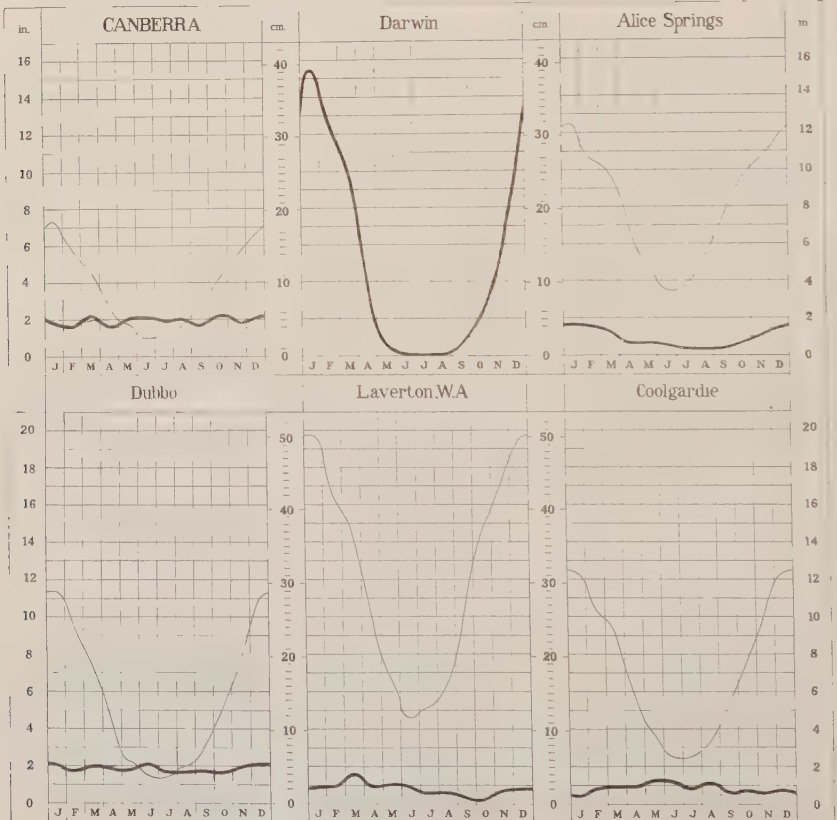
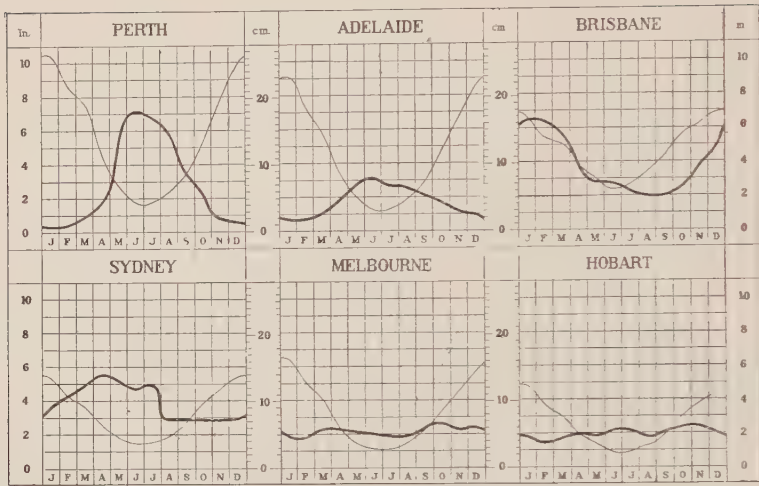
The upper and lower fine lines join the greatest and the least monthly means of relative humidity respectively, the figures under the outer columns "F" indicating percentage values.

The curves for temperature and vapour pressure joining the mean monthly values serve to show the annual fluctuation of these elements, but the relative humidity graphs joining the extreme values for each month do not indicate any normal annual variation.

Comparison of the maximum and minimum temperature curves affords a measure of the mean diurnal range of temperature. At Perth in the middle of January, for instance, there is normally a range of 21° from 63° F. to 84° F., but in July it is only 15° from 48° F. to 63° F.

The relative humidity curves illustrate the extreme range of the mean monthly humidity over a number of years.

MEAN MONTHLY RAINFALL AND EVAPORATION.



EXPLANATION.—On the preceding graphs thick lines denote rainfall, and thin lines evaporation, and show the fluctuation of the mean rate of fall or evaporation *per month* throughout the year. The results, plotted from the Climatological Tables herein, are shown in inches (see the outer columns), and the corresponding metric scale (centimetres) is shown in the two inner columns. The evaporation is not given for Darwin.

At Perth, Adelaide, Brisbane, Melbourne, Hobart, Canberra, Alice Springs, and Coolgardie the results have been obtained from jacketed tanks sunk in the ground. At Sydney and Dubbo sunken tanks without water jackets are used, whilst at Laverton (W.A.) the records are taken from a small portable jacket evaporation dish of 8 inches in diameter.

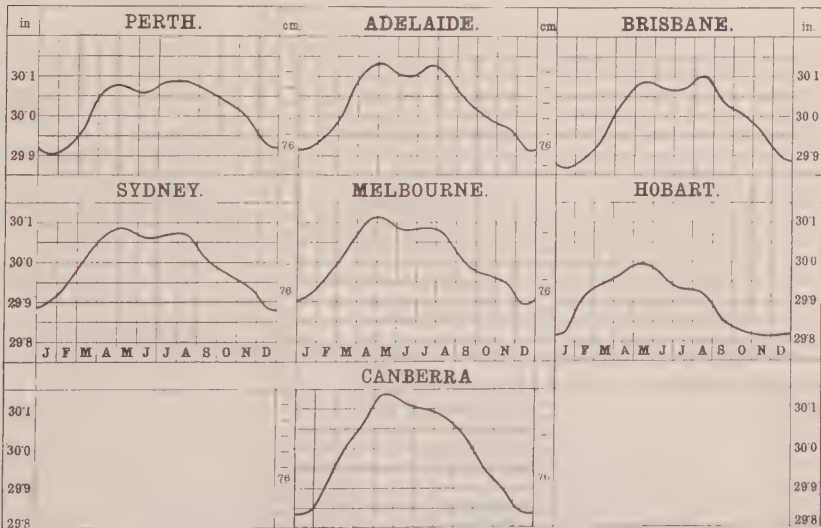
The distance for any date from the zero line to the curve represents the average number of inches, reckoned as per month, of rainfall at that date. Thus, taking the curve for Adelaide in the middle of January, the rain falls on the average at the rate of about three-fourths of an inch per month or, say, at the rate of about 9 inches per year. In the middle of June it falls at the rate of a little over 3 inches per month, or, say, at the rate of about 37 inches per year. At Dubbo, the evaporation is at the rate of nearly 11½ inches per month about the middle of January, and only about 1½ inches at the middle of June.

The mean annual rainfall and evaporation at the places indicated are given in the appended table.

MEAN ANNUAL RAINFALL AND EVAPORATION.

Place.	Rainfall.	Evapora- tion.	Place.	Rainfall.	Evapora- tion.
	In.	In.		In.	In.
Perth ..	34.81	66.29	Canberra ..	23.28	44.73
Adelaide ..	21.17	55.34	Darwin ..	59.14	—
Brisbane ..	44.93	56.28	Alice Springs ..	10.51	96.83
Sydney ..	47.16	39.48	Dubbo ..	21.98	66.37
Melbourne ..	25.65	39.04	Laverton, W.A.	9.14	145.17
Hobart ..	23.97	31.12	Coolgardie ..	10.17	85.37

MEAN BAROMETRIC PRESSURE.—CAPITAL CITIES.



EXPLANATION. The lines representing the yearly fluctuations of barometric pressure at the State capital cities are means for long periods, and are plotted from the Climatological Tables herein. The pressures are shown in inches on about 2½ times the natural scale, and the corresponding pressures in centimetres are also shown in the two inner columns, in which each division represents one millimetre.

Taking the Brisbane graph for purposes of illustration, it will be seen that the mean pressure in the middle of January is about 29.87 inches, and there are maxima in the middle of May and August of about 30.09 inches.

COMMONWEALTH OF AUSTRALIA.
BUREAU OF METEOROLOGY.
MELBOURNE.

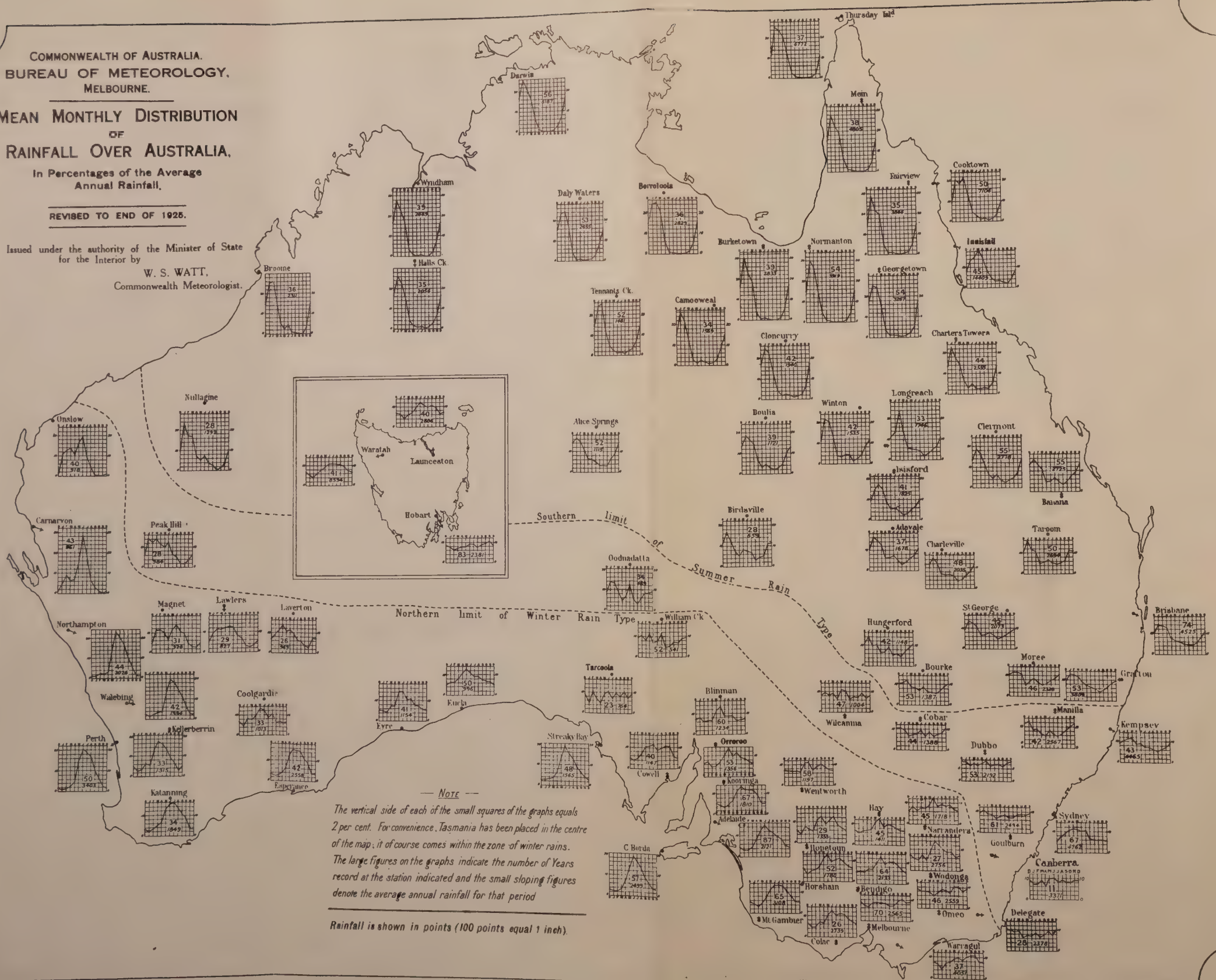
MEAN MONTHLY DISTRIBUTION
OF
RAINFALL OVER AUSTRALIA.

In Percentages of the Average
Annual Rainfall.

REVISED TO END OF 1925.

Issued under the authority of the Minister of State
for the Interior by

W. S. WATT,
Commonwealth Meteorologist.



Australian Alps, where also the temperature falls below zero Fahrenheit during the night. In the ravines around Kosciusko and similar localities the snow never entirely disappears.

11. Hail.—Hail falls most frequently along the southern shores of the continent in the winter, and over eastern Australia during the summer months. The size of the hailstones generally increases with distance from the coast. A summer rarely passes without some station experiencing a fall of stones exceeding in size an ordinary hen-egg, and many riddled sheets of light-gauge galvanized iron bear evidence of the weight and penetrating power of the stones.

The hailstones occur most frequently when the barometric readings indicate a flat and unstable condition of pressure. They are almost invariably associated with tornadoes or tornadic tendencies, and on the east coast the clouds from which the stones fall are generally of a remarkable sepia-coloured tint.

12. Barometric Pressures.—The mean annual barometric pressure (corrected to sea-level and standard gravity) in Australia varies from 29.80 inches on the north coast to 29.92 inches over the central and 30.03 inches in the southern parts of the continent. In January, the mean pressure ranges from 29.70 inches in the northern and central areas to 29.95 inches in the southern. The July mean pressure ranges from 29.90 inches at Darwin to 30.11 inches at Alice Springs. Barometer readings corrected to mean sea-level and standard gravity have, under anticyclonic conditions in the interior of the continent, ranged as high as 30.78 inches (at Kalgoorlie on the 28th July, 1901) and have fallen as low as 27.55 inches. This lowest record was registered at Mackay during a tropical hurricane on the 21st January, 1918. An almost equally abnormal reading of 27.88 inches was recorded at Innisfail during a similar storm on the 10th March, 1918. The mean barometric pressure for the capitals of Australia is shown on the graphs herein.

13. Wind.—(i) *Trade Winds.* The two distinctive wind currents in Australia are as previously stated, the south-east and westerly trade winds. As the belt of the earth's atmosphere in which they blow apparently follows the sun's ecliptic path north and south of the equator, so the area of the continent affected by these winds varies at different seasons of the year. During the summer months the anticyclonic belt travels in very high latitudes, thereby bringing the south-east trade winds as far south as 30° south latitude. The westerly trade winds retreat a considerable distance to the south of Australia, and are rarely in evidence in the hot months. When the sun passes to the north of the equator, the south-east trade winds follow it, and only operate to the north of the tropics for the greater part of the winter. The westerly winds come into lower latitudes during the same period of the year. They sweep across the southern areas of the continent from the Leeuwin to Cape Howe, and during some seasons are remarkably persistent and strong, and occasionally penetrate to almost tropical latitudes.

(ii) *Land and Sea Breezes.* The prevailing winds second in order of importance are the land and sea breezes. On the east coast the sea breezes which come in from the north-east, when in full force, frequently reach the velocity of a gale during the afternoon in the summer months, the maximum hourly velocity, ordinarily attained about 3 p.m., not infrequently attaining a rate of 35 to 40 miles per hour. This wind, although strong, is usually shallow in depth, and does not ordinarily penetrate more than 9 or 12 miles inland.

The land breezes on the east-coast blow out from a westerly direction during the night.

On the western shores of the continent the directions are reversed. The sea breezes come in from the south-west, and the land breezes blow out from the north-east.

(iii) *Inland Winds.* Inland, the direction of the prevailing winds is largely regulated by the seasonal changes of pressure, so disposed as to cause the winds to radiate spirally outward from the centre of the continent during the winter months, and to circulate spirally from the seaboard to the centre of Australia during the summer months.

(iv) *Prevailing Direction at the Capital Cities.* In Canberra, the winds are mainly from easterly and north-westerly directions, the former predominating to a somewhat greater degree in the mornings, the latter in the afternoons and in the colder half of the year.

In Perth, southerly (south-west to south-east) is the prevailing direction for August to April inclusive and north-north-west to north-north-east for the midwinter months.

In Adelaide the summer winds are from the south-west and south, and in the winter from north-east to north.

In Brisbane, south-east winds are in evidence all the year round, but more especially from January to April.

In Sydney from May to September the prevailing direction is westerly, and for the remaining seven months north-easterly.

Melbourne winter winds are from north-west to north-east, and those of the summer from south-west to south-east.

At Hobart the prevailing direction for the year is from north-west.

Over the greater part of Australia, January is the most windy month, i.e., is the month when the winds are strongest on the average, though the most violent wind storms occur at other times during the year, the time varying with the latitude.

14. Cyclones and Storms.—The “elements” in Australia are ordinarily peaceful, and while destructive cyclones have visited various parts, more especially coastal areas, such visitations are rare, and may be properly described as erratic.

During the winter months, the southern shores of the continent are subject to cyclonic storms, evolved from the V-shaped depressions of the southern low-pressure belt. They are felt most severely over the south-western parts of Western Australia, to the south-east of South Australia, in Bass Strait, including the coast-line of Victoria, and on the west coast of Tasmania. Apparently the more violent wind pressures from these cyclones are experienced in their northern half, or in that part of them which has a north-westerly to a south-westerly circulation.

The north-east coast of Queensland is occasionally visited by hurricanes from the north-east tropics. During the first four months of the year, these hurricanes appear to have their origin in the neighbourhood of the South Pacific Islands, their path being a parabolic curve first to the S.W. and finally towards the S.E. Only a small percentage, however, reach Australia, the majority recurring in their path to the east of New Caledonia.

Very severe cyclones, locally known as “willy willies,” are peculiar to the north-west coast of Western Australia from the months of November to April, inclusive. They apparently originate in the ocean in the vicinity of Cambridge Gulf, and travel in a south-westerly direction with continually increasing force, displaying their greatest energy near Cossack and Onslow, between latitudes 20° and 22° South. The winds in these storms, like those from the north-east tropics, are very violent and destructive, and cause great havoc amongst the pearl-fishers. The greatest velocities are usually to be found in the south-eastern quadrant of the cyclones, with north-east to east winds. After leaving the north-west coast, these storms either travel southwards, following the coast-line, or cross the continent to the Great Australian Bight. When they take the latter course, their track is marked by torrential rains, as much as 29.41 inches, for example, being recorded in 24 hours at Whim Creek from one such occurrence. Falls of 10 inches and over have frequently been recorded in the northern interior of Western Australia from similar storms.

Some further notes on severe cyclones and on "southerly bursters," a characteristic feature of the eastern part of Australia, will be found in previous issues of the Official Year Book (see No. 6, pp. 84, 85, 86).

A special article dealing with "Australian Hurricanes and Related Storms" appeared in Official Year Book No. 16, pp. 80-84.

15. Influences affecting Australian Climate.—(i) *General.* Australian history does not cover a sufficient period, nor is the country sufficiently occupied, to ascertain whether or not the advance of settlement has materially affected the climate as a whole. Local changes have, however, taken place, a fact which suggests that settlement and the treatment of the land have a distinct effect on local conditions. For example, the mean temperature of Sydney shows a rise of two tenths of a degree during the last twenty years, a change probably brought about by the great increase of residential and manufacturing buildings within the city and in the surrounding suburbs. Again, low-lying lands on the north coast of New South Wales, which originally were seldom subject to frosts, have, with the denudation of the surrounding hills from forests, experienced annual visitations, the probable explanation being that through the absence of trees the cold air of the high lands now flows unchecked and untempered down the sides of the hills to the valleys and lower lands.

(ii) *Influence of Forests on Climate.* As already indicated, forests doubtless exercise a great influence on local climate, and hence, to the extent that forestal undertakings will allow, the weather can be controlled by human agency. The direct action of forests is an equalizing one; thus, especially in equatorial regions, and during the warmest portion of the year, they considerably reduce the mean temperature of the air. They also reduce the diurnal extremes of shade temperatures by altering the extent of radiating surface by evaporation, and by checking the movement of air, and while decreasing evaporation from the ground, they increase the relative humidity. Vegetation greatly diminishes the rate of flow-off of rain and the washing away of surface soil, and when a region is protected by trees, a steadier water supply is ensured, and the rainfall is better conserved. In regions of snowfall, the supply of water to rivers is similarly regulated, and without this and the sheltering influence of ravines and "gullies," watercourses supplied mainly by melting snow would be subject to alternative periods of flooding and dryness. This is borne out in the case of the inland rivers, the River Murray, for example, which has never been known to become dry, deriving its steadiness of flow mainly through the causes indicated.

(iii) *Direct Influence of Forests on Rainfall.* Whether forests have a direct influence on rainfall is a debatable question, some authorities alleging that precipitation is undoubtedly induced by forests, while others take the opposite view.

Sufficient evidence exists, however, to prove that, even if the rainfall has not increased, the beneficial climatic effect of forest lands more than warrants their protection and extension. Rapid rate of evaporation, induced by both hot and cold winds, injures crops and makes life uncomfortable on the plains, and, while it may be doubted that the forest aids in increasing precipitation, it must be admitted that it does check winds and the rapid evaporation due to them. Trees as wind-breaks have been successfully planted in central parts of the United States, and there is no reason why similar experiments should not be successful in many parts of the treeless interior of Australia. The belts should be planted at right angles to the direction of the prevailing parching winds, and if not more than half a mile apart will afford shelter to the enclosed areas.

In previous issues some notes on observations made in other countries were added (see Official Year Book No. 6, pp. 86 and 95).

16. Rainfall and Temperatures, Various Cities. The following table shows rainfall and temperature for various important cities throughout the world, for the Australian Capital, and for the capitals of the Australian States.

RAINFALL AND TEMPERATURES—VARIOUS CITIES.

Place.	Height above M.S.L.	Annual Rainfall.			Temperature.					
		Average.	Highest.	Lowest.	(a) Mean Summer.	(b) Mean Winter.	Highest on Record.	Lowest on Record.	Average Hottest Month.	Average Coldest Month.
		Ft.	In.	In.	Fahr.	Fahr.	Fahr.	Fahr.	Fahr.	Fahr.
Amsterdam (Gar-										
dens) ..	3	31.26	38.39	20.24	61.3	37.4	93.2	3.2	64.0	37.0
Auckland ..	160	41.85	71.75	26.32	65.8	52.3	85.0	35.0	66.6	51.0
Athens ..	351	15.48	33.33	1.59	79.2	49.1	100.4	17.0	81.0	47.4
Bergen ..	116	73.43	107.32	54.33	56.1	34.7	86.0	7.3	57.4	34.2
Berlin (Central) ..	161	22.72	30.04	14.25	64.8	33.0	98.6	-13.4	66.0	31.8
Berne ..	1,877	36.30	58.23	24.69	62.2	30.1	91.4	-3.6	64.4	28.0
Bombay ..	32	70.54	114.89	33.42	82.7	74.7	100.2	53.2	84.3	73.9
Breslau ..	410	22.60	32.51	15.91	64.2	30.9	99.9	-25.6	64.2	30.0
Brussels ..	328	28.35	41.18	17.73	62.6	36.0	95.4	-4.4	63.7	34.5
Budapest ..	425	24.96	37.05	16.81	69.3	32.2	101.7	-10.1	71.2	30.2
Buenos Aires ..	82	36.78	79.72	20.04	72.7	50.9	104.0	22.3	73.8	50.0
Calcutta ..	21	61.82	98.48	38.43	85.6	68.0	111.3	44.2	86.0	66.4
Capetown ..	40	25.50	36.72	17.71	68.1	54.7	102.0	34.0	68.8	53.9
Caracas ..	3,420	30.03	47.36	23.70	68.3	65.3	87.8	48.2	69.2	63.7
Chicago ..	823	33.28	45.86	24.52	70.0	26.1	103.0	-23.0	72.4	23.7
Christchurch ..	22	25.21	35.30	13.54	60.8	43.5	95.7	21.3	61.6	42.7
Christiania (Oslo) ..	82	23.39	36.13	16.24	61.0	25.5	95.0	-13.4	64.1	24.4
Colombo ..	24	88.53	123.96	53.56	81.6	78.7	97.2	61.6	82.0	78.0
Constantinople ..	245	28.75	42.74	14.78	74.0	43.5	103.6	13.0	75.7	42.0
Copenhagen ..	43	22.80	32.52	14.02	60.9	32.7	91.4	-13.0	62.6	31.8
Dresden ..	115	24.22	34.42	11.73	64.6	33.2	93.4	-15.3	66.0	31.0
Dublin (City) ..	54	27.66	35.56	16.60	59.1	42.8	87.0	13.0	60.4	42.5
Dunedin ..	300	36.92	54.31	21.86	57.3	43.5	94.0	23.0	58.0	42.5
Durban ..	260	40.79	71.27	27.24	75.6	64.4	110.6	41.1	76.7	63.8
Edinburgh (Leith) ..	441	25.21	32.05	16.41	55.2	39.4	92.0	6.0	57.3	38.7
Geneva ..	1,332	32.13	47.60	18.73	64.0	33.4	100.0	-13.5	65.8	31.8
Genoa ..	157	51.29	108.22	28.21	73.8	46.8	94.5	16.7	75.4	45.5
Glasgow ..	139	38.49	56.18	29.05	57.0	39.5	84.9	6.6	58.3	39.3
Greenwich ..	149	23.50	35.54	16.38	61.7	40.4	100.0	4.0	63.3	40.1
Hong Kong ..	109	85.61	119.72	45.84	81.5	60.5	97.0	32.0	82.0	58.8
Johannesburg ..	5,750	31.63	50.00	21.66	65.4	54.4	93.6	20.8	68.2	48.0
Leipzig ..	394	24.69	31.37	17.10	63.9	31.6	96.4	-16.6	64.8	30.0
Leningrad ..	16	21.30	29.52	13.75	61.1	17.4	89.6	-30.3	63.7	15.2
Lisbon ..	313	26.97	52.82	16.34	70.0	52.9	102.9	29.3	71.1	51.8
London (Kew) ..	18	23.80	38.18	12.16	60.8	39.9	94.0	9.0	62.3	39.1
Madras ..	22	49.85	78.92	21.74	89.0	76.8	113.0	57.5	89.9	76.1
Madrid ..	2,140	10.23	27.48	9.13	73.0	41.2	107.1	10.5	75.7	39.7
Marseilles ..	246	22.10	43.04	11.11	70.4	45.5	101.5	6.3	72.0	44.3
Moscow ..	526	18.04	29.07	12.07	63.4	14.7	95.0	-41.4	66.1	11.9
Naples ..	489	34.00	56.58	21.75	73.6	48.0	99.1	23.0	75.4	46.8
New York ..	314	44.03	58.68	33.17	71.4	31.8	102.0	-13.0	73.5	30.2
Ottawa ..	236	33.51	51.25	25.63	66.6	14.0	98.0	-33.0	69.1	11.8
Paris (Pare-St. Maur) ..	174	22.68	29.80	10.94	63.5	37.9	101.1	-19.5	64.8	36.7
Pekin ..	123	22.66	36.00	18.00	77.9	26.8	100.2	2.7	70.3	23.7
Quebec ..	296	41.25	53.79	32.12	63.4	12.6	97.0	-34.0	65.6	9.8
Rome ..	166	32.57	57.89	12.72	74.3	46.0	103.0	21.4	76.1	44.6
San Francisco ..	155	22.27	38.82	9.00	58.8	50.5	101.0	20.0	59.3	49.5
Shanghai ..	21	45.00	62.52	27.92	78.0	41.1	102.9	10.2	80.4	37.8
Singapore ..	8	91.99	158.68	32.71	81.2	78.6	94.2	63.4	81.5	78.3
Stockholm ..	146	21.60	28.47	11.77	62.2	26.4	91.8	-22.0	59.7	27.3
Tokio ..	65	61.45	86.37	45.72	74.8	39.2	91.0	29.7	77.7	37.5
Trieste ..	85	42.94	63.14	26.57	73.9	41.3	99.5	14.0	76.3	39.9
Vienna ..	904	25.51	33.53	10.31	65.3	31.3	97.0	11.1	66.7	29.5
Vladivostok (Mt.) ..	420	29.33	38.48	21.17	65.5	9.7	92.3	-22.2	60.4	3.6
Washington ..	112	43.50	61.33	30.85	74.7	34.5	106.0	-15.0	76.8	32.9
Wellington ..	10	39.86	67.68	27.83	61.9	48.7	88.0	28.6	62.6	48.0
Zürich ..	1,542	45.15	78.27	29.02	63.3	31.3	94.1	-0.8	65.1	29.5

AUSTRALIAN CAPITAL.

					(a)	(b)				
Canberra ..	1,920	23.28	35.89	16.31	67.3	43.9	104.2	14.0	68.7	42.8

STATE CAPITALS.

					(a)	(b)				
Perth ..	197	34.81	49.22	20.21	73.2	56.1	112.2	34.2	74.2	55.3
Adelaide ..	140	21.17	30.87	11.39	72.9	53.2	116.3	32.0	74.0	51.9
Brisbane ..	137	44.93	88.26	16.17	76.6	59.8	108.9	36.1	77.2	58.6
Sydney ..	138	47.16	82.76	23.01	71.0	54.3	108.5	35.7	71.6	53.0
Melbourne ..	115	25.65	38.04	15.61	66.6	50.0	111.2	27.0	67.6	48.8
Hobart ..	177	23.97	43.39	13.43	61.4	46.9	105.2	27.0	62.2	45.9

(a) Mean of the three hottest months.

(b) Mean of the three coldest months.

17. **Climatological Tables.**—The means, averages, extremes, totals, etc., for a number of climatological elements have been determined from long series of observations at the Australian capitals up to and including the year 1937. These are given in the following tables:—

CLIMATOLOGICAL DATA—CANBERRA, AUSTRALIAN CAPITAL TERRITORY.

LAT. 35° 20' S., LONG. 149° 15' E. HEIGHT ABOVE M.S.L. 1,920 FT.

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS AND CLEAR DAYS.

Month.	Bar. corrected to 32° F. Mn. Sea- level and Stan- dard Gravity from 9 a.m. and 3 p.m. readings.	Wind.						Mean Amount of Evaporation (inches).	No. of Days Lightning.	Mean Amount of Clouds, 9 a.m., 3 p.m. and 9 p.m.	No. of Clear Days.
		Greatest Number of Miles in One Day.	Mean Hourly Pres- sure. (lb.)	Total Miles.	Prevailing Direction.						
					9 a.m.	3 p.m.					
No. of yrs. over which observation extends.	20	9	9	21	21	16	10	19	12		
January	29.828	358 23/33	0.11	4,338	E	W	7.34	4	4.1	9	
February	29.905	366 24/33	0.08	3,421	E	W	5.70	5	4.5	8	
March	30.003	351 22/31	0.06	3,306	E	W	4.44	5	4.3	8	
April	30.058	326 29/29	0.06	3,168	SE	E	2.67	2	4.1	7	
May	30.135	302 3/30	0.04	2,666	E	N	1.72	1	4.5	3	
June	30.117	386 2/30	0.05	3,122	N	N & W	1.02	1	4.6	6	
July	30.111	562 7/31	0.06	3,105	E	W	1.15	0	4.6	7	
August	30.074	325 12/31	0.07	3,540	N	N	1.67	2	4.5	7	
September .. .	30.030	418 28/34	0.09	3,999	E	N	2.78	2	4.0	9	
October	29.947	253 30/30	0.08	3,819	E	W	4.04	2	4.4	7	
November .. .	29.905	402 14/30	0.09	3,827	E	W	5.53	4	4.3	8	
December .. .	29.840	380 6/29	0.10	4,110	E	W	6.62	7	4.6	6	
Year { Totals ..	—	—	—	—	—	—	—	—	—	90	
Averages ..	29.996	—	0.07	3,535	E	W	44.73	35	—	—	
Extremes ..	—	562 7/7/31	—	—	—	—	—	—	4.4	—	

TEMPERATURE AND SUNSHINE.

Month.	Mean Temperature (Fahr.).			Extreme Shade Temperature (Fahr.).		Extreme Range.	Extreme Temperature (Fahr.).		Mean Hours of Sunshine.
	Mean Max.	Mean Min.	Mean.	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.	
	21	21	21	21	21		(a)	19	13
No. of yrs. over which observation extends.	21	21	21	21	21	21	—	—	—
January ..	82.3	55.2	68.7	104.2 28/32	38.8 25/28	65.4	—	33.2 17/33	236.4
February ..	81.8	55.1	68.5	102.6 16/19	33.0 21/33	69.6	—	26.8 21/33	196.4
March ..	76.0	50.9	63.4	97.0 18/27	31.0 24/35	66.0	—	25.5 24/17	215.9
April ..	66.8	43.7	55.2	83.0 1/25	26.5 29/17	56.5	—	17.5 29/17	190.7
May ..	59.4	37.0	48.2	74.7 9/19	19.0 30/24	55.7	—	12.0 28/20	157.7
June ..	53.2	34.3	43.7	66.2 5/17	17.8 20/35	48.4	—	9.9 20/35	126.4
July ..	52.2	33.4	42.8	65.0 8/19	14.0 19/24	51.0	—	10.0 (c)	144.0
August ..	55.6	34.8	45.2	73.0 (b)	18.0 5/19	55.0	—	11.8 5/19	174.4
September ..	61.3	38.2	49.8	83.2 27/19	24.7 26/36	58.5	—	17.0 26/36	203.5
October ..	67.9	43.1	55.5	93.8 31/19	27.0 2/18	66.8	—	20.0 (d)	232.5
November ..	74.7	48.2	61.4	97.7 29/36	28.1 24/15	69.6	—	22.4 11/36	224.6
December ..	79.4	53.3	66.3	101.3 24/37	32.0 3/24	69.3	—	31.0 (e)	230.1
Year { Averages ..	67.5	43.9	55.7	—	—	—	—	—	(f) 2,332.1
Extremes ..	—	—	—	104.2 28/1/32	14.0 19/7/24	90.2	—	9.9 20/6/35	—

(a) Not available.

(b) 28/1923 and 25/1924.

(c) 19/1924 and 24/1935.

(d) 1 and 3/1923.

(e) 1/1923, 3/1924, and 15 and 16/1931.

(f) Total for year.

HUMIDITY, RAINFALL AND DEW.

Month.	Vapour Pressure (inches).	Rel. Hum. (%)				Rainfall (inches).					Dew
		Mean 9 a.m.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days Rain.	Greatest Monthly.	Least Monthly.	Greatest in One Day.		
No. of yrs. over which observation extends.	19	19	19	19	23	23	23	23	23	5	
January ..	0.377	56	69	39	1.88	6	5.18 1936	0.07 { 1919 1932	2.92 6/27	5	
February ..	0.403	62	75	47	1.67	6	4.07 1936	0.00 1933	2.75 23/16	7	
March ..	0.378	69	79	56	2.20	6	5.81 1914	0.21 1924	1.86 7/20	13	
April ..	0.307	75	86	63	1.55	7	3.63 1935	0.20 1925	1.94 8/21	11	
May ..	0.242	81	92	67	1.92	7	13.37 1925	0.06 1934	6.84 27/25	10	
June ..	0.216	84	93	73	2.07	9	5.86 1931	0.44 1935	3.95 22/25	8	
July ..	0.206	84	92	74	1.88	10	4.15 1933	0.25 1913	2.40 13/33	9	
August ..	0.218	81	97	67	2.05	10	3.78 1934	0.01 1914	1.90 18/25	9	
September ..	0.252	72	81	55	1.72	9	5.26 1915	0.36 1928	2.18 20/15	9	
October ..	0.287	63	73	48	2.22	8	7.50 1934	0.62 1936	2.74 25/34	9	
November ..	0.325	58	78	37	1.94	8	6.95 1924	0.09 1918	2.38 5/23	7	
December ..	0.372	58	70	45	2.18	8	4.49 1919	0.11 1925	2.10 28/29	5	
Year { Totals ..	—	—	—	—	23.28	95	—	—	—	92	
Averages ..	0.286	70	—	—	—	—	13.37 5/1925	0.00 2/1933	6.84 27/5/25	—	
Extremes ..	—	—	93	37	—	—	—	—	—	—	

CLIMATOLOGICAL DATA—PERTH, WESTERN AUSTRALIA.

LAT. 31° 57' S., LONG. 115° 50' E. HEIGHT ABOVE M.S.L. 197 Ft.

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS AND CLEAR DAYS.

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS, &c.										
Month.	Bar. corrected to 32° F. Mm. Sea Level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind.					Mean Amount of Evaporation (inches).	No. of Days Lightning.	Mean Amount of Clouds, 9 a.m. 3 p.m. and 9 p.m.	No. of Clear Days.
		Greatest Number of Miles in One Day.	Mean Hourly Pressure. (lb.)	Total Miles.	Prevailing Direction.					
					9 a.m.	3 p.m.				
No. of yrs. over which observation extends.	53	40	40	40	39	39	39	40	30	41
January	29.905	797 27/98	0.62	10,935	ESE	SSW	10.43	1.9	2.9	14.4
February	29.924	650 6/08	0.60	9,510	ESE	SSW	8.90	1.4	3.2	11.9
March	29.983	651 6/13	0.51	9,755	E	SSW	7.62	1.5	3.5	12.2
April	30.072	955 25/00	0.38	8,044	ESE	SSW	4.74	1.5	4.3	8.5
May	30.069	825 29/32	0.34	7,995	NE	SW	3.24	2.3	5.5	5.4
June	30.062	914 17/27	0.36	7,884	NNE	WNW	1.76	2.2	5.8	3.9
July	30.092	1,015 20/26	0.39	8,478	NNE	W	1.74	2.0	5.6	5.1
August	30.085	966 15/03	0.42	8,417	NNE	WSW	2.35	1.6	5.5	5.5
September	30.063	864 11/05	0.44	8,781	NE	WSW	3.39	1.2	4.0	6.2
October	30.030	809 6/16	0.51	9,651	SSE	SW	5.34	1.0	4.8	6.6
November	29.993	777 18/97	0.51	9,658	SE	SW	7.60	1.5	3.9	8.4
December	29.926	776 6/22	0.62	10,730	SE	SSW	9.82	1.8	3.2	12.4
Year { Totals	—	—	—	—	—	—	66.29	19.9	—	100.5
Year { Averages	30.017	—	0.48	9,786	E	SW	—	—	4.4	—
Year { Extremes	—	1,015 20/7/26	—	—	—	—	—	—	—	—

TEMPERATURE AND SUNSHINE.

Month.	Mean Temperature (Fahr.).			Extreme Shade Temperature (Fahr.).		Extreme Range.	Extreme Temperature (Fahr.).		Mean Hours of Sunshine.
	Mean Max.	Mean Min.	Mean.	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.	
No. of yrs. over which observation extends.	41	41	41	41	41	41	39	39	40
January	84.7	63.4	74.0	110.2 21/34	48.6 20/25	61.6	177.3 22/14	40.4 1/21	323.4
February .. .	85.0	63.4	74.2	112.2 8/33	47.7 1/02	64.8	173.7 4/34	39.3 1/13	272.0
March	81.5	61.5	71.5	100.4 14/22	45.8 8/03	60.6	167.0 10/18	39.7 8/03	269.4
April	76.3	57.3	66.8	99.7 9/10	39.3 20/14	60.4	157.0 8/16	31.0 20/14	219.1
May	68.9	52.8	60.8	90.4 2/07	34.3 11/14	56.1	146.0 4/25	25.3 11/14	175.2
June	64.1	49.6	56.8	81.7 2/14	35.0 30/20	46.7	135.5 9/14	26.3 11/37	144.5
July	62.7	47.8	55.3	76.4 21/21	34.2 7/16	42.2	132.9 25/13	25.1 30/20	166.5
August	63.8	48.3	56.1	81.0 12/14	35.4 31/08	45.6	145.1 29/21	26.7 24/35	186.1
September ..	66.4	50.3	58.4	90.9 30/18	38.8 18/00	52.1	153.6 29/16	29.2 21/16	208.7
October	69.1	52.5	60.8	95.3 30/22	40.0 16/31	55.3	157.5 31/36	29.8 16/31	243.7
November ..	75.7	56.9	66.3	104.6 24/13	42.0 1/04	62.6	167.0 30/15	35.4 6/10	289.1
December ..	81.2	60.9	71.0	107.9 20/04	48.0 2/10	59.9	168.8 11/27	39.0 (8)	325.4
Year { Averages ..	73.3	55.4	64.3	—	—	—	—	—	282.376
Year { Extremes ..	—	—	—	112.2 8/2/33	34.2 7/7/16	78.0	177.3 22/1/14	25.1 30/7/20	—

(a) 2/1910 and 12/1920.

(b) Total for year.

HUMIDITY, RAINFALL AND DEW.

Month.	Vapour Pressure (Inches).	Rel. Hum. (%)			Rainfall (inches).						Dew.
		Mean 9 a.m.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days Rain.	(greatest Monthly.	Least Monthly.	(greatest in One Day.	Mean No. of Days Dew.	
No. of yrs. over which observation extends.	41	41	41	41	62	62	62	62	62	41	
January ..	0.438	52	61	41	0.33	3	2.17 1879	0.00 (a)	1.74 27/79	2.8	
February ..	0.439	53	65	46	0.40	3	2.08 1915	0.00 (a)	1.63 26/15	4.0	
March ..	0.426	57	66	46	0.82	5	5.71 1934	0.00 (a)	3.03 9/34	6.6	
April ..	0.394	62	73	51	1.71	7	5.85 1920	0.00 1920	2.62 30/04	10.5	
May ..	0.372	74	81	61	5.14	14	12.13 1879	0.08 1903	2.80 20/79	13.0	
June ..	0.337	79	83	68	7.07	17	12.80 1923	2.16 1877	3.90 6/20	13.0	
July ..	0.326	79	84	69	6.09	18	12.28 1926	2.42 1876	3.00 4/91	13.4	
August ..	0.335	73	79	62	5.75	18	12.21 1928	0.16 1902	2.79 7/93	12.0	
September ..	0.341	68	75	58	3.40	15	7.84 1923	0.34 1916	1.82 4/31	10.8	
October ..	0.346	61	75	54	2.19	12	7.87 1890	0.49 1892	1.73 3/33	6.4	
November ..	0.376	54	63	46	0.75	6	2.78 1916	0.00 1891	1.11 30/03	3.8	
December ..	0.412	51	63	44	0.56	4	3.05 1888	0.00 { 1886 1924	1.72 1/88	2.8	
Year { Totals ..	—	—	—	—	34.81	122	—	—	—	99.1	
Year { Averages ..	0.378	63	—	—	—	—	12.80 6/1923	Nil (b)	3.90 6/6/20	—	
Year { Extremes ..	—	—	84	41	—	—	—	—	—	—	

(a) Various years.

(b) Various months in various years.

CLIMATOLOGICAL DATA—ADELAIDE, SOUTH AUSTRALIA.

LAT. 34° 56' S., LONG. 138° 35' E. HEIGHT ABOVE M.S.L. 140 FT.

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS AND CLEAR DAYS.

		Bar. corrected to 32° F. M.S. Sea Level and Stan- dard Gravity from 9 a.m. and 3 p.m. readings.	Wind.						Mean Amount of Evaporation (inches).	No. of Days Lightning.	Mean Amount of Clouds, 9 a.m., 3 p.m. and 9 p.m.	No. of Clear Days.
Month.	No. of yrs. over which observation extends.		Greatest Number of Miles in One Day.	Mean Hourly Pressure. (lb.)	Total Miles.	Prevailing Direction.						
						9 a.m.	3 p.m.					
								81				
January ..	29.916	758	19/09	0.33	7,827	SW	SW	9.05	2.3	3.6	8.0	
February ..	29.953	691	22.90	0.28	6,584	NE	SW	7.40	2.0	3.5	7.0	
March ..	30.038	628	9/12	0.23	6,572	S	SW	5.98	2.1	4.0	7.3	
April ..	30.119	773	10/96	0.21	6,071	NE	SW	3.52	1.6	5.0	4.6	
May ..	30.125	760	9/80	0.20	6,224	NE	NW	2.08	1.7	5.8	2.4	
June ..	30.103	750	12/78	0.23	6,415	NE	N	1.27	1.9	6.2	1.8	
July ..	30.124	674	25/82	0.23	6,648	NE	NW	1.30	1.6	5.9	1.9	
August ..	30.095	773	31/97	0.27	7,118	NE	SW	1.89	2.2	5.6	2.7	
September ..	30.041	720	2/87	0.29	7,197	NNE	SW	2.89	2.3	5.2	3.5	
October ..	29.997	768	28/98	0.32	7,764	NNE	SW	4.79	3.2	5.1	3.9	
November ..	29.980	677	2/04	0.32	7,457	SW	SW	6.67	3.2	4.6	5.4	
December ..	29.919	675	12/91	0.33	7,808	SW	SW	8.50	2.6	3.9	7.1	
Year { Totals ..	—	—	—	—	—	—	—	55.34	26.7	—	56.8	
Year { Averages ..	30.034	—	—	0.27	6,974	NE	SW	—	—	4.9	—	
Year { Extremes ..	—	773	(a)	—	—	—	—	—	—	—	—	

(a) 10/4/96 and 31/8/97.

TEMPERATURE AND SUNSHINE.

Month.	Mean Temperature (Fahr.).			Extreme Shade Temperature (Fahr.).		Extreme Range.	Extreme Temperature (Fahr.).		Mean Hours of Sunshine.
	Mean Max.	Mean Min.	Mean.	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.	
No. of yrs. over which observation extends.	81	81	81	81	81	81	55	77	56
January	85.9	61.5	73.7	116.3 26/58	45.1 21/84	71.2	180.0 18/82	36.5 14/79	307.4
February .. .	86.0	61.9	74.0	113.6 12/99	45.5 23/18	68.1	170.5 10/00	35.8 23/26	263.5
March .. .	80.9	58.9	69.9	110.5 9/34	43.9 21/33	66.6	174.0 17/83	32.1 21/33	239.5
April .. .	73.2	54.5	63.9	80.0 10/66	39.6 15/59	58.4	155.0 1/83	30.2 16/17	180.4
May .. .	65.8	50.3	58.1	89.5 4/21	36.9 (a)	52.6	148.2 12/79	25.6 19/28	149.8
June .. .	60.4	46.7	53.6	76.0 23/65	32.5 27/76	43.5	138.8 18/79	22.9 12/13	123.4
July .. .	59.0	44.7	51.9	74.0 11/06	32.0 24/08	42.0	134.5 26/90	22.1 30/29	136.8
August .. .	62.0	46.0	54.0	85.0 31/11	32.3 17/59	52.7	140.0 31/92	22.8 11/29	163.2
September ..	66.4	48.0	57.2	90.7 23/82	32.7 4/58	58.0	160.5 23/82	25.0 25/27	185.0
October .. .	72.4	51.5	61.9	102.9 21/22	36.0 —/57	66.9	162.0 30/21	27.8 (c)	225.5
November ..	78.6	55.4	67.0	113.5 21/65	40.8 2/09	72.7	166.9 20/78	31.5 2/09	263.1
December ..	81.2	58.9	71.1	111.6 29/31	43.0 (b)	71.6	175.7 7/99	32.5 4/84	299.3
Year { Averages ..	72.8	53.2	63.0	—	—	—	—	—	2536.9
Year { Extremes ..	—	—	—	116.3 26/1/58	32.0 24/7/08	84.3	180.0 18/1/82	22.1 30/7/29	(d)

(a) 26/1895 and 24/1904.

(b) 16/1861 and 4/1906.

(c) 2/1918 and 4/1931.

(d) Total for year.

HUMIDITY, RAINFALL AND DEW.

Month.	Vapour Pressure (inches).	Rel. Hum. (%)			Rainfall (inches).					Dew.	
		Mean 9 a.m.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days of Rain.	Greatest Monthly.	Least Monthly.	Greatest in One Day.		Mean No. of Days of Dew.
No. of yrs. over which observation extends.	70	70	70	70	99	99	99	99	99	66	
January ..	0.339	38	59	29	0.74	4	4.00	1850	Nil (a)	2.30 2/89	3.6
February ..	0.355	41	56	30	0.72	4	6.09	1925	Nil (a)	5.57 7/25	5.5
March ..	0.346	46	58	36	1.02	6	4.60	1878	Nil (a)	3.50 5/78	10.3
April ..	0.335	56	72	37	1.71	9	6.78	1853	0.03 1923	3.15 5/60	13.9
May ..	0.317	67	76	49	2.73	14	7.75	1875	0.10 1934	2.75 1/53	16.1
June ..	0.297	76	84	67	3.07	16	8.58	1916	0.42 1886	2.11 1/20	16.2
July ..	0.277	76	87	66	2.63	16	5.38	1865	0.37 1899	1.75 10/65	17.4
August ..	0.286	69	77	54	2.55	16	6.24	1852	0.35 1914	2.23 19/51	16.8
September ..	0.296	60	72	44	2.09	14	5.83	1923	0.45 1896	1.59 20/23	15.7
October ..	0.298	51	67	29	1.72	11	3.83	1870	0.17 1914	2.24 16/08	12.8
November ..	0.307	42	57	31	1.15	8	4.10	1934	0.04 1885	2.08 7/34	6.6
December ..	0.321	39	50	31	1.04	6	3.98	1861	Nil 1904	2.42 23/13	4.4
Year { Totals ..	—	—	—	—	21.17	124	—	—	—	—	139.3
Year { Averages ..	0.309	53	—	—	—	—	8.58	6/16	Nil (b)	5.57 7/2/25	—
Year { Extremes ..	—	—	87	29	—	—	—	—	—	—	—

(a) Various years

(b) Various months in various years.

CLIMATOLOGICAL DATA—BRISBANE, QUEENSLAND.

LAT. 27° 28' S., LONG. 153° 2' E. HEIGHT ABOVE M.S.L. 137 Ft.

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS AND CLEAR DAYS.

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS, &c.										
Month.	Bar. corrected to 32° F. M. Sea Level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind.					Mean Amount of Evaporation (inches).	No. of Days Lightning.	Mean Amount of Clouds, 9 a.m., 3 p.m. and 6 p.m.	No. of Clear Days.
		Greatest Number of Miles in One Day.	Mean Hourly Pressure. (lb.)	Total Miles.	Prevailing Direction.					
					9 a.m.	3 p.m.				
No. of yrs. over which observation extends.	51	27	27	27	51	51	29	51	46	29
January ..	29.867	361 1/22	0.12	4,538	SE	E & NE	8.735	7.4	5.7	3.5
February ..	29.904	593 5/31	0.12	4,450	S & SE	NE & E	8.242	5.7	5.4	4.4
March ..	29.965	488 1/29	0.10	4,441	S	SE & E	8.002	4.5	5.3	5.6
April ..	30.010	400 3/25	0.09	4,001	S	SE & E	7.627	4.0	4.5	4.7
May ..	30.086	393 7/10	0.06	3,884	S	SE	7.672	5.2	4.3	9.2
June ..	30.072	455 14/28	0.08	3,922	SW & S	S & W	2.409	2.4	4.2	9.2
July ..	30.076	359 2/23	0.08	3,887	S & SW	SW	2.677	2.5	3.7	12.5
August ..	30.099	355 4/35	0.08	3,978	S & SW	SW & NE	3.453	3.4	3.4	12.5
September ..	30.045	329 4/31	0.06	3,926	S & SW	NE & E	4.358	6.8	3.6	12.3
October ..	30.003	355 14/36	0.10	4,410	S	NE	5.768	8.6	4.1	8.5
November ..	29.901	371 10/28	0.12	4,594	SE & NE	NE	6.275	8.6	4.0	5.9
December ..	29.887	467 15/26	0.12	4,832	SE	NE	6.966	9.5	5.3	3.7
Year { Totals ..	—	—	—	—	—	—	56.276	64.1	—	92.8
Year { Averages ..	30.000	—	0.10	4,261	S	NE	—	—	4.5	—
Year { Extremes ..	—	503 5/2/31	—	—	—	—	—	—	—	—

TEMPERATURE AND SUNSHINE.

Month.	Mean Temperature (Fahr.).			Extreme Shade Temperature (Fahr.).			Extreme Range.	Extreme Temperature (Fahr.).		Mean Hours of Sunshine.
	Mean Max.	Mean Min.	Mean.	Highest.	Lowest.	Highest in Sun.		Lowest on Grass.		
No. of yrs. over which observation extends.	51	51	51	51	51	51	43	51	29	
January ..	85.4	68.9	77.2	108.4	11.2	97.2	119.0	4.93	235.1	
February ..	84.5	68.5	76.5	105.7	21.25	84.5	108.2	1.13	209.0	
March ..	82.3	60.3	71.3	99.4	5.19	94.2	111.7	1.75	215.8	
April ..	79.0	61.5	70.2	95.2	(4)	91.2	107.0	11.10	212.8	
May ..	73.6	55.4	64.5	90.3	21/23	69.3	107.0	1.10	205.4	
June ..	69.3	51.0	60.2	88.0	10/12	77.0	107.0	3.18	183.7	
July ..	68.5	48.7	58.6	83.4	28.98	54.4	107.0	20.15	210.2	
August ..	71.2	49.9	60.6	88.5	25.29	63.3	111.1	20.17	238.1	
September ..	75.6	51.8	63.2	95.2	10.12	85.1	115.8	20.03	241.3	
October ..	79.6	60.1	69.9	101.4	18.93	82.5	127.1	31.19	250.9	
November ..	82.4	64.2	73.3	100.1	18.13	82.0	127.1	27.80	243.8	
December ..	84.9	67.1	76.2	105.0	29.93	75.1	127.1	27.80	250.7	
Year { Averages ..	78.0	59.7	68.8	108.9	—	72.8	169.0	23.9	2702.9	
Year { Extremes ..	—	—	—	14.1/02	36.1 (c)	—	2/1/37	11/7/90	(d)	

(a) 9/96 and 5/03.

(b) 12/94 and 2/96.

(c) 12/7/94 and 2/7/96.

(d) Total for year.

HUMIDITY, RAINFALL AND DEW.

Month.	Vapour Pressure (inches).	Rel. Hum. (%).				Rainfall (inches).					Dew. Mean No. of Days Dew.		
		Mean 9 a.m.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days Rain.	Greatest Monthly.	Least Monthly.	Greatest in One Day.				
No. of yrs. over which observation extends.	51	51	51	51	86	77	86	86	68	51			
January ..	0.638	65	79	53	6.38	13	27.72	1895	0.32	1919	18.31	21.87	9.2
February ..	0.645	69	82	56	6.33	11	40.39	1893	0.58	1849	10.61	10.31	9.2
March ..	0.613	72	85	56	5.62	15	34.04	1870	Nil	1819	11.18	14/08	12.0
April ..	0.519	71	82	57	5.75	12	25.28	1867	0.05	1897	5.40	5/33	15.1
May ..	0.433	73	85	61	5.27	10	13.85	1870	Nil	1840	5.02	9/70	10.2
June ..	0.357	73	84	63	5.78	9	14.03	1873	Nil	1847	6.01	9/03	14.3
July ..	0.328	72	81	61	5.22	8	8.40	1880	Nil	1841	3.54	(c)	15.0
August ..	0.348	60	80	50	1.05	1	14.67	1879	Nil	(d)	4.80	12/87	14.7
September ..	0.408	64	70	47	2.00	3	5.43	1880	0.10	1907	2.40	2/94	13.8
October ..	0.472	60	73	48	2.57	9	0.99	1882	0.14	1900	3.75	3/27	12.6
November ..	0.534	60	72	45	3.86	10	12.41	1917	Nil	1843	4.46	16/86	8.7
December ..	0.595	61	69	51	4.89	12	13.99	1910	0.35	1895	6.60	28/71	8.6
Year { Totals ..	—	—	—	—	44.93	127	—	—	—	—	—	—	150.6
Year { Averages ..	0.490	67	—	—	—	—	—	—	—	—	—	—	—
Year { Extremes ..	—	—	85	45	—	—	40.39	2/93	Nil	(b)	18.31	21/1/87	—

(a) 1862, 1869, 1880.

(b) Various months in various years.

(c) 15/76 and 16/89.

CLIMATOLOGICAL DATA—SYDNEY, NEW SOUTH WALES.

LAT. 33° 52' S., LONG. 151° 12' E. HEIGHT ABOVE M.S.L. 138 FT.

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS AND CLEAR DAYS.

WIND, CLOUDS, AND CLEAR DAYS.												
Month.	Bar. corrected to 32° F. Mm. Sea Level and Stan- dard Gravity from hourly readings.	Greatest Number of Miles in One Day.	Mean Hourly Pres- sure. (lb.)	Total Miles.	Wind.*		Prevailing Direction.		Mean Amount of Evaporation (inches).	No. of Days Lightning.	Mean Amount of Clouds, 9 a.m. 3 p.m. and 9 p.m.	No. of Clear Days.
							9 a.m.	3 p.m.				
No. of yrs. over which observation extends.	79	71	71	71	71	71			58	78	76	27
January	29.893	627 3 93	0.27	6.977	NE	ENE	5.394	5.0	5.8	4.8		
February .. .	29.943	697 12 69	0.24	6.014	NE	ENE	4.262	4.4	6.0	5.3		
March	30.013	751 20 70	0.18	5.819	W	ENE	3.657	4.2	5.5	5.8		
April	30.068	642 6 82	0.16	5.330	W	ENE	2.642	3.7	5.1	7.3		
May	30.084	662 6 98	0.17	5.435	W	NE	1.849	2.9	4.9	7.6		
June	30.064	642 13 08	0.21	5.801	W	W	1.447	2.1	4.9	8.2		
July	30.071	744 17 79	0.20	6.017	W	W	1.536	2.2	4.4	10.3		
August	30.068	649 22 72	0.19	5.878	W	NE	1.966	3.2	4.0	11.0		
September ..	30.010	771 6 74	0.22	6.127	W	NE	2.746	3.9	4.3	10.0		
October	29.967	741 4 72	0.25	6.656	W	ENE	3.918	5.0	5.0	7.4		
November .. .	29.941	583 12 87	0.25	6.535	ENE	ENE	4.656	5.4	5.6	5.7		
December .. .	29.881	750 3 84	0.26	6.943	ENE	ENE	5.408	5.9	5.7	4.7		
Year { Totals	—	—	—	—	—	—	39.481	47.9	—	88.1		
Year { Averages .. .	30.000	—	0.22	6.133	W	ENE	—	—	—	—		
Year { Extremes .. .	—	771 6/9/74	—	—	—	—	—	—	5.0	—		

TEMPERATURE AND SUNSHINE.

Month.	Mean Temperature (Fahr.).			Extreme Shade Temperature (Fahr.).		Extreme Range.	Extreme Temperature (Fahr.).		Mean Hours of Sunshine.
	Mean Max.	Mean Min.	Mean.	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.	
No. of yrs. over which observation extends.	79	79	79	79	79	79	75	79	17 †
January	78.4	64.9	71.6	108.5 13/96	51.2 14/65	57.3	164.3 26/15	43.7 6/25	227.9
February	77.7	65.0	71.3	107.8 8/26	49.3 28/63	58.5	161.2 8/26	42.8 22/33	202.3
March	75.8	62.9	69.4	102.6 3/69	48.8 14/86	53.8	158.3 10/26	39.9 17/13	202.3
April	71.3	57.9	64.6	91.4 1/36	44.6 27/64	46.8	144.1 10/77	33.3 24/09	185.7
May	65.7	52.1	58.9	86.0 1/19	40.2 22/59	45.8	129.7 1/96	29.3 25/17	176.4
June	61.2	48.2	54.7	80.4 11/31	35.7 22/32	44.7	125.5 2/23	28.0 22/32	157.5
July	59.9	46.0	53.0	78.3 22/26	35.9 12/90	42.4	124.7 19/77	24.0 4/93	187.3
August	63.0	47.5	55.2	82.0 31/84	36.8 3/72	45.2	149.0 30/78	26.1 4/09	220.1
September	67.1	51.4	59.2	92.3 27/19	40.8 18/64	51.5	142.2 12/78	30.1 17/05	223.2
October	71.3	55.8	63.6	98.9 19/98	42.2 6/27	56.7	152.2 20/33	32.7 9/05	236.8
November	74.3	59.6	67.0	102.7 21/78	45.8 1/05	56.9	158.5 28/99	36.0 6/06	231.7
December	77.0	62.9	70.0	107.5 31/04	48.4 3/24	59.1	164.5 27/89	41.4 3/24	224.3
Year { Averages	70.2	56.2	63.2	—	—	—	—	—	2475.5
Year { Extremes	—	—	—	108.5	35.7	72.8	164.5	24.0	(a)
				13/1/96	22/6/32		27/12/89	4/7/93	

(a) Total for year.

HUMIDITY, RAINFALL AND DEW.

Month.	Vapour Pres- sure (inches).	Rel. Hum. (%).			Rainfall (inches).					Dew. Mean No. of Days Dew.	
		Mean 9 a.m.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days Rain.	Greatest Monthly.	Least Monthly.	Greatest in One Day.		
No. of yrs. over which observation extends.	79	79	79	79	79	79	79	79	79	78	
January ..	0.546	67	78	58	3.56	14	15.26	1911	0.25 1932	7.08 13/11	1.0
February ..	0.561	70	81	59	4.23	13	18.56	1873	0.23 1933	8.90 25/73	2.7
March ..	0.529	73	85	62	4.00	15	18.70	1870	0.42 1876	6.52 9/13	4.8
April ..	0.444	76	87	63	5.46	14	24.49	1861	0.06 1868	7.52 29/60	7.0
May ..	0.357	77	90	62	5.03	14	23.03	1919	0.18 1860	8.36 28/89	8.0
June ..	0.301	77	89	68	4.83	13	10.30	1885	0.19 1904	5.17 16/84	6.8
July ..	0.277	76	88	63	4.70	12	13.21	1900	0.12 1862	7.80 7/31	7.5
August ..	0.292	71	84	56	2.86	12	14.05	1879	0.04 1885	5.33 2/60	6.0
September ..	0.332	66	79	49	2.85	12	11.14	1916	0.21 1867	5.69 10/79	4.8
October ..	0.364	62	77	40	2.82	12	9.88	1865	0.07 1915	6.37 13/02	3.4
November ..	0.444	63	79	42	2.82	12	9.88	1865	0.07 1915	4.23 19/00	2.4
December ..	0.505	65	77	52	2.97	13	15.82	1920	0.23 1913	4.75 13/10	1.7
Year { Totals ..	—	—	—	—	47.16	155	—	—	—	—	57.6
Year { Averages ..	0.402	70	—	—	—	—	24.49 4/1861	0.04 8/1885	8.90 25/273	—	—
Year { Extremes ..	—	90	42	—	—	—	—	—	—	—	—

* Early records revised during 1929. Values for period 1867—September 1885, reduced to per cent. for period September 1885 to March 1913, reduced to per cent. † From 1921 only; previous records discarded owing to faulty exposure of instruments.

CLIMATOLOGICAL DATA—MELBOURNE, VICTORIA.

LAT. 37° 49' S., LONG. 144° 58' E. HEIGHT ABOVE M.S.L. 115 FT.

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS AND CLEAR DAYS.

Month.	Bar. corrected to 32° F. Mm. Sea Level and Stan- dard Gravity from hourly readings.	Wind.						Mean Amount of Evaporation (inches).	No. of Days Lightning.	Mean Amount of Clouds, 9 a.m., 3 p.m. and 9 p.m.	No. of Clear Days.
		Greatest Number of Miles in One Day.	Mean Hourly Pres- sure. (lb.)	Total Miles.	Prevailing Direction.						
					9 am.	3 p.m.					
No. of yrs. over which observation extends.	80	64	64	64	64	64	65	30	80	30	
January ..	29.908	583 10/97	0.20	6,875	SW	SE	6.414	1.7	5.1	6.9	
February ..	29.960	566 8/68	0.23	5,934	SW	SE	5.031	2.3	4.9	6.7	
March ..	30.033	677 9/81	0.19	5,936	SW	SE	4.019	1.8	5.4	5.5	
April ..	30.100	597 7/68	0.17	5,370	SW	NW	2.407	1.1	5.9	4.5	
May ..	30.107	693 12/65	0.16	5,485	NW	NE	1.498	0.6	6.4	3.2	
June ..	30.084	761 13/76	0.20	5,818	NW	NE	1.129	0.4	6.6	2.6	
July ..	30.088	755 8/74	0.19	5,928	NW	NE	1.093	0.4	6.3	2.9	
August ..	30.062	637 14/75	0.22	6,380	NW	NE	1.496	1.0	6.3	2.9	
September ..	29.999	617 11/72	0.24	6,496	NW	SW	2.322	1.2	6.1	3.3	
October ..	29.967	899 5/66	0.25	6,817	SW	NW	3.353	1.2	6.0	3.7	
November ..	29.953	734 13/66	0.25	6,576	SW	SE	4.544	2.4	5.9	3.8	
December ..	29.898	655 1/75	0.26	6,987	SW	SE	5.731	2.1	5.5	4.5	
Year { Totals ..	—	—	—	—	—	—	39.037	17.1	—	50.5	
	Averages ..	30.013	—	0.22	6,217	SW	NW	—	—	5.9	—
	Extremes ..	—	899 5/10/66	—	—	—	—	—	—	—	—

TEMPERATURE AND SUNSHINE.

Month.	Mean Temperature (Fahr.).			Extreme Shade Temperature (Fahr.).		Extreme Range.	Extreme Temperature (Fahr.).		Mean Hours of Sunshine.
	Mean Max.	Mean Min.	Mean.	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.	
No. of yrs. over which observation extends.	82	82	82	82	82	82	77	78	56
January	78.0	56.7	67.4	111.2 14/1862	42.0 28/1885	69.2	178.5 14/62	30.2 28/85	257.3
February .. .	78.1	57.2	67.6	109.5 7/1901	40.2 24/1924	69.3	167.5 15/70	30.9 6/91	236.4
March .. .	74.5	54.7	64.6	105.5 2/1893	37.1 17/1884	68.4	164.5 1/68	28.9 (b)	206.4
April .. .	68.1	50.7	59.4	94.0 (a)	34.8 24/1888	59.2	152.0 8/61	25.0 23/97	159.4
May .. .	61.6	46.7	54.2	83.7 7/1905	29.9 29/1916	53.8	142.6 2/59	21.1 26/16	138.0
June .. .	56.8	43.9	50.3	72.2 1/1907	28.0 11/1866	44.2	129.0 11/61	19.9 30/29	110.4
July .. .	55.7	41.9	48.8	69.3 22/1926	27.0 21/1869	42.3	125.8 27/80	20.5 12/03	130.0
August .. .	58.7	43.4	51.0	77.0 20/1885	28.3 11/1863	48.7	137.4 29/69	21.3 14/02	152.0
September..	62.7	45.6	54.2	88.6 28/1928	31.1 16/1908	57.5	142.1 20/67	22.8 8/18	170.7
October .. .	67.1	48.3	57.7	98.4 24/1914	32.1 3/1871	66.3	154.3 28/68	24.8 22/18	198.8
November..	71.4	51.3	61.4	105.7 27/1894	36.5 2/1896	69.2	159.6 29/65	24.6 2/96	230.2
December ..	75.3	54.4	64.9	110.7 15/1876	40.0 4/1870	70.7	170.3 20/69	22.2 1/04	245.0
Year { Averages ..	67.3	49.6	58.5	—	—	—	—	—	c2,234.6
Extremes ..	—	—	—	111.2 14/1/62	27.0 21/7/69	84.2	178.5 14/1/62	19.9 30/6/29	—

(a) 6/1865 and 17/1922.

(b) 17/1884 and 20/1897.

(c) Total for year.

HUMIDITY, RAINFALL AND DEW.

Month.	Vapour Pres- sure (Inches).	Rel. Hum. (%)				Rainfall (inches).				Dew.			
		Mean 9 a.m.	Highest Mean.	Lowest Mean.	Mean No. of Days Rain.	Greatest Monthly.	Least Monthly.	Greatest in One Day.					
No. of yrs. over which observation extends.	30	30	30	30	82	82	82	82	79	30			
January ..	0.387	58	65	50	1.91	8	5.68	1904	0.01	1932	2.97	9/97	2.7
February ..	0.478	62	69	48	1.74	7	6.24	1904	0.03	1870	3.37	18/19	4.1
March ..	0.383	64	73	57	2.20	10	7.50	1911	0.14	1934	2.55	5/19	7.7
April ..	0.350	72	82	66	2.30	11	6.71	1901	Nil	1923	2.28	22/01	9.1
May ..	0.308	79	86	71	2.10	13	4.31	1862	0.14	1934	1.85	7/91	10.1
June ..	0.278	84	92	76	2.05	14	4.51	1859	0.73	1877	1.74	21/04	8.4
July ..	0.264	82	86	76	1.88	14	7.02	1891	0.57	1902	2.71	12/91	8.5
August ..	0.271	76	82	70	1.88	15	4.04	1924	0.48	1903	1.94	26/24	7.7
September ..	0.290	69	76	60	2.31	14	7.93	1916	0.52	1907	2.62	12/80	6.7
October ..	0.307	62	67	53	2.70	13	7.61	1869	0.29	1914	3.00	17/60	5.6
November ..	0.335	60	69	52	2.24	11	6.71	1916	0.25	1895	2.57	16/76	2.2
December ..	0.370	59	69	51	2.34	10	7.18	1863	0.11	1904	3.20	1/34	1.8
Year { Totals ..	—	—	—	—	25.65	140	—	—	—	—	—	—	74.6
Averages ..	0.324	69	—	—	—	—	7.93	9/1916	Nil	4/1923	3.55	5/3/19	—
Extremes ..	—	—	92	48	—	—	—	—	—	—	—	—	—

CLIMATOLOGICAL DATA—HOBART, TASMANIA.

LAT. 42° 53' S. LONG. 147° 20' E. HEIGHT ABOVE M.S.L. 177 FT.

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS AND CLEAR DAYS.

Month.	Bar. corrected to 32° F. M'n. Sea Level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind.				Prevailing Direction.		Mean Amount of Evaporation (inches).	No. of Days Lightning.	Mean Amount of Clouds, 9 a.m., 3 p.m. and 9 p.m.	No. of Clear Days.
		Greatest Number of Miles in One Day.	Mean Hourly Pressure. (lb.)	Total Miles.	9 a.m.	3 p.m.					
No. of yrs. over which observation extends.	53	27	27	27	32	32	27	30	75	31	
January	29.824	500 30/16	0.19	5,965	NW to N	SE	4.800	0.9	6.0	2.2	
February .. .	29.920	605 4/27	0.15	4,753	N & NN W	SE	3.665	1.1	6.0	2.4	
March	29.948	443 19/27	0.13	4,988	N & NN W	SE	3.034	1.3	5.9	2.5	
April	29.970	533 27/26	0.14	4,857	NW to N	NW & SE	1.975	0.6	6.2	1.6	
May	29.994	484 20/36	0.12	4,761	NW to N	NW to N	1.370	0.6	6.1	2.4	
June	29.972	569 27/20	0.12	4,434	N W & N W	N to NW	0.902	0.4	6.1	2.4	
July	29.934	499 19/35	0.13	4,862	N N W & N W	NNW to N	0.919	0.4	5.8	2.2	
August	29.920	612 19/26	0.14	5,085	N to NW	NW to N	1.281	0.4	5.9	2.1	
September ..	29.852	516 26/15	0.18	5,589	N to NW	NW & SE	1.950	0.7	6.1	1.6	
October .. .	29.820	461 8/12	0.20	6,083	N to NW	SE & NW	3.022	0.6	6.4	1.1	
November ..	29.817	508 18/15	0.19	5,742	N to NW	SE	3.836	0.7	6.4	1.5	
December ..	29.815	562 1/34	0.17	5,045	N to NW	SE	4.366	0.8	6.4	1.3	
Year { Totals	—	—	—	—	—	—	31.120	8.3	—	23.3	
Year { Averages	29.900	—	0.16	5,230	N to NW	SE & NW	—	—	6.1	—	
Year { Extremes	—	612 19/8/26	—	—	—	—	—	—	—	—	

TEMPERATURE AND SUNSHINE.

Month.	Mean Temperature (Fahr.).			Extreme Shade Temperature (Fahr.).		Extreme Range.	Extreme Temperature (Fahr.).		Mean Hours of Sunshine.
	Mean Max.	Mean Min.	Mean.	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.	
No. of yrs. over which observation extends.	67	67	67	91	91	91	48	70	17*
January	71.0	52.8	61.9	105.0 (a)	40.0 3/72	65.0	160.0 (b)	30.6 19/97	234.8
February	71.1	53.4	62.2	104.4 12/99	39.0 20/87	65.4	165.0 24/98	28.3 —/87	195.1
March	67.9	50.9	59.4	99.0 —/61	35.2 31/26	63.8	150.0 3/05	27.5 30/02	199.1
April	62.5	47.7	55.1	90.0 1/56	30.0 25/56	60.0	142.0 18/93	25.0 —/86	143.5
May	57.4	43.9	50.6	77.8 5/21	29.2 20/02	48.6	128.0 (c)	20.0 19/02	141.5
June	52.7	41.0	46.8	75.0 7/74	28.0 22/79	47.0	122.0 12/94	21.0 6/87	118.6
July	51.1	39.6	45.9	72.0 22/77	27.0 18/66	45.0	121.0 12/93	18.7 16/86	120.4
August	55.1	41.1	48.1	77.0 3/76	30.0 10/73	47.0	129.0 —/87	20.1 7/09	159.0
September ..	58.8	43.3	51.0	81.7 23/26	30.0 12/41	51.7	138.0 23/93	18.3 16/26	172.1
October	62.6	45.6	54.1	92.0 24/14	32.0 12/89	60.0	156.0 9/93	23.8 (d)	190.8
November ..	66.0	48.3	57.1	98.3 26/37	35.2 5/13	62.8	154.0 10/92	26.0 1/08	222.7
December ..	69.0	51.2	60.1	105.2 30/97	38.0 13/06	67.2	157.9 30/18	27.2 —/86	215.1
Year { Averages	62.2	46.6	54.4	—	—	—	—	—	2,121.3
Year { Extremes	—	—	—	105.2 30/12/97	27.0 18/7/66	78.2	165.0 24/2/98	18.3 16/9/26	(e)

(a) 27/49 and 1/00.

(b) 5/86 and 13.05.

(c) —/89 and —/93.

(d) 1/86 and —/99.

(e) Total for year.

* Early records discarded owing to faulty instrument.

CLIMATOLOGICAL DATA—HOBART, TASMANIA—*continued.*

HUMIDITY, RAINFALL, AND DEW.

Month.	Vapour Pres- sure (inches).	Rel. Hum. (%).			Rainfall (inches).					Dew. Mean No. of Days Dew.
		Mean 9 a.m.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days Rain.	Greatest Monthly.	Least Monthly.	Greatest in One Day.	
No. of yrs. over which observation extends.	51	51	51	51	95	94	95	95	71	28
January ..	0.332	58	72	46	1.84	10	5.91 1893	0.03 1841	2.96 30/16	0.5
February ..	0.355	63	77	52	1.49	9	9.15 1854	0.07 1817	4.50 27/54	1.3
March ..	0.328	66	77	58	1.73	12	7.60 1854	0.02 1843	3.27 11/32	5.0
April ..	0.298	72	84	58	1.97	12	8.50 1935	0.07 1904	5.02 20/09	9.1
May ..	0.268	77	89	65	1.85	13	6.37 1905	0.10 1843	3.22 14/58	13.2
June ..	0.240	80	91	68	2.21	14	8.15 1889	0.22 1852	4.11 13/89	8.7
July ..	0.230	80	94	72	2.13	15	6.02 1922	0.30 1850	2.51 18/22	8.8
August ..	0.239	75	92	64	1.83	14	10.16 1858	0.23 1854	4.35 12/58	8.5
September ..	0.252	67	85	58	2.07	15	7.14 1844	0.39 1847	2.75 18/44	5.4
October ..	0.269	63	73	51	2.33	15	6.67 1906	0.26 1850	2.58 4/06	2.8
November ..	0.297	60	72	50	2.43	14	8.94 1849	0.16 1868	3.97 7/49	1.1
December ..	0.318	58	67	45	2.09	12	9.00 1875	0.11 1842	2.82 21/29	0.9
Year { Totals ..	—	—	—	—	23.97	153	—	—	—	65.3
Year { Averages ..	0.286	68	—	—	—	—	—	—	—	—
Year { Extremes ..	—	—	94	45	—	—	10.16 8/1858	0.02 3/1843	5.02 20/4/06	—

(a) 4.18 on 28/54 also.

§ 3. Standard Times in Australia.

Prior to 1895 the official time adopted in the several colonies was for most purposes the mean solar time of the capital city of each.

In November, 1892, an intercolonial conference of surveyors was held in Melbourne to consider, among other things, the advantages of introducing the system of standard time. In this system it was proposed to make the initial meridian that of Greenwich, and to change local standard time by whole hours according to the longitude east or west of that of Greenwich. Thus for every difference of 15° in longitude a change of one hour would be required. The minutes and seconds would then be identical everywhere.

To give effect to this proposal it was suggested that Australia should be divided into three zones, the standard times for which should be respectively the mean solar times of the meridians of 120°, 135° and 150° E. longitude, thus giving standard times 8, 9 and 10 hours respectively, ahead of Greenwich time. It was proposed that the 120° zone should comprise Western Australia, that the 135° zone should comprise South Australia and the Northern Territory, and that the 150° zone should comprise Queensland, New South Wales, Victoria and Tasmania.

The matter was also considered by several intercolonial postal conferences, and eventually in 1894 and 1895 legislation was enacted by each of the colonies in accord with the recommendations of the surveyor's conference of 1892.

In 1898 the South Australian legislature amended its earlier provision, and adopted the mean solar time of the meridian 142° 30' E. longitude as the standard time for that colony, thus reducing the difference between the standard time of Adelaide and that of the capitals of the eastern colonies from an hour to half-an-hour, and forfeiting the great advantage of the system, viz., that the minutes and seconds should be identical throughout the world.

Particulars concerning these enactments are as follows :—

STANDARD TIMES IN AUSTRALIA.

State.	Date when Act came into Operation.	Meridian Selected.	Time Ahead of Greenwich. Hours.
New South Wales	1st February, 1895	150° E.	10
Victoria	1st February, 1895	150° E.	10
Queensland	1st January, 1895	150° E.	10
South Australia	1st February, 1895	135° E.	9
South Australia	1st May, 1899	142° 30' E.	9½
Western Australia	1st December, 1895	120° E.	8
Tasmania	1st September, 1895	150° E.	10

The standard time in the Australian Capital Territory is the same as in New South Wales.

Consequent upon the opening of the Trans-Australian Railway an arrangement has been made by which the change of time between South Australia and Western Australia (viz., 1½ hours) is divided into two changes of 45 minutes each. Going east from Kalgoorlie the first change is made at Rawlinna, 235.18 miles out, where the time is put forward by 45 minutes. The second change of the same amount is made at Tarcoola, 794.05 miles out. Thenceforward South Australian standard time is kept. The advantage of standard time has thus been still further sacrificed, as there is not now even a whole half-hour difference; the essential idea of standard zone time has to this extent, therefore, been abandoned. The State Observatories at Sydney, Melbourne, Adelaide and Perth derive time by astronomical observation. By arrangement with the Australian Broadcasting Commission observatory time-signals are broadcast in the several States at intervals during the day. In addition, the Amalgamated Wireless (Australasia) Ltd. re-broadcast the daily time-signals of certain overseas stations.

CHAPTER III. GENERAL GOVERNMENT.

§ 1. Scheme of Parliamentary Government.

1. **General.**—A brief account of the general legislative powers of the Commonwealth and States is given in preceding issues of the Official Year Book (see No. 13, pp. 927 to 951, and No. 22, page 64).

2. **Powers and Functions of the Governor-General and of the State Governors.**—A detailed statement of the powers and functions of the Governor-General and of the State Governors will be found in preceding issues of the Official Year Book (see No. 18, pp. 78 to 80).

3. **Governor-General and State Governors.**—The present Governor-General is Brigadier-General the Right Honorable ALEXANDER GORE ARKWRIGHT, BARON GOWRIE, V.C., P.C., G.C.M.G., C.B., D.S.O. He assumed office on the 23rd January, 1936.

The following is a list of the Governors of the various States of the Commonwealth :—

New South Wales ..	The Rt. Hon. LORD WAKEHURST, K.C.M.G.
Victoria	Captain the Rt. Hon. WILLIAM CHARLES ARCEDECKN. BARON HUNTINGFIELD, K.C.M.G.
Queensland ..	Colonel the Rt. Hon. SIR LESLIE ORME WILSON, G.C.S.I., G.C.M.G., G.C.I.E., D.S.O.
South Australia ..	Major-General SIR WINSTON JOSEPH DUGAN, K.C.M.G., C.B., D.S.O.
Western Australia ..	Lieut.-Governor—The Hon. SIR JAMES MITCHELL, K.C.M.G.
Tasmania ..	SIR ERNEST CLARK, K.C.M.G., K.C.B., C.B.E.

4. **The Cabinet and Executive Government.**—(i) *General.* In both the Commonwealth and the State Legislatures the forms of government have been founded on their prototypes in the Imperial Government, and the relations established between the Ministry and the representatives of the people are in accordance with those prevailing in Great Britain. The executive powers in the Commonwealth are vested in the Governor-General in Council, and in the State Governments in the Governor in Council. The Executive Council in the Commonwealth and in the States is practically co-extensive with a group of departmental chiefs, who are usually spoken of as the Cabinet, and who change with the rise and fall of party majorities. In the Commonwealth Government, however, as well as in the States of Victoria and Tasmania, the Cabinet on leaving office remain members of the Executive Council, though they no longer attend its meetings, and it is in fact an essential feature of the Cabinet system of Government that they should not do so, except to assist the Governor in transacting purely formal business, or to advise on non-political questions.

(ii) *The Executive Council.* This body is composed of the Governor and the Ministers of State holding office for the time being. The latter are sworn both as Executive Councillors and as Ministers controlling the different administrative departments. The meetings are official in character; they are presided over by the Governor-General (or Governor) and are attended by the clerk, who keeps a formal record of the proceedings. At these meetings the decisions of the Cabinet are put into official form and made effective, appointments are confirmed, resignations accepted, proceedings ordered, and notices and regulations published.

(iii) *The Appointment of Ministers and of Executive Councillors.* Although it is technically possible for the Governor to make and unmake cabinets at his pleasure, under all ordinary circumstances his apparent liberty in choosing his Executive Council is virtually restricted by the operation of constitutional machinery. When a Ministry is defeated in Parliament or at the polls, the procedure both in the Commonwealth and the State Parliaments generally, though not invariably, follows that prevailing in the Imperial Parliament. The customary procedure in connexion with the resignation or acceptance of office by a Ministry is described fully in previous issues of the Year Book.

(See No. 6, page 942.) It is necessary to add that subsequent amending legislation has, in most of the States, obviated the necessity of responsible Ministers vacating their seats on appointment to office.

(iv) *Ministers in Upper and Lower Houses.* The subjoined table shows the number of Ministers with seats in the Upper or Lower Houses of each Parliament in August, 1938:—

AUSTRALIAN PARLIAMENTS—MINISTERS IN UPPER OR LOWER HOUSES, 1938.

Ministers with Seats in—	C'wealth.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
The Upper House ..	3	2	4	(a)	2	2	2	15
The Lower House ..	11	12	8	10	4	7	6	58
Total ..	14	14	12	10	6	9	8	73

(a) Abolished in 1922.

(v) *The Cabinet.* (a) *General.* The meetings of this body are private and deliberative. The actual Ministers of the day are alone present, no records of the meetings transpire, and no official notice is taken of the proceedings. The members of the Cabinet, being the leaders of the party in power in Parliament, control the trend of legislation, and must retain the confidence of the people and also of the Governor-General (or Governor), to whom they act as an advising body. They also in effect wield, by virtue of their seats on the Executive Council, the whole executive force of the community. In summoning, proroguing, or dissolving Parliament, the Governor-General (or Governor) is usually guided by the advice tendered him by the Cabinet, though legally in no way bound to accept such advice.

(b) *Commonwealth Ministers of State.* A statement showing the names of Ministers of State who have held office from the inauguration of the Commonwealth Government to 1925 will be found in Official Year Book No. 18, pages 82 and 83.

(c) *State Ministries.* A list of the members of the Ministry in each State in August, 1938, will be found in § 3 of this Chapter.

5. *Number and Salary of Members of the Legislatures.*—The following table shows the number and annual salary of members in each of the legislative chambers in August, 1938:—

MEMBERS OF COMMONWEALTH AND STATE PARLIAMENTS, AND ANNUAL SALARIES, 1938.

Members in—	C'wealth.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
MEMBERS.								
Upper House ..	36	60	34	(a)	20	30	18	198
Lower House ..	75	90	65	62	39	50	30	411
Total ..	111	150	99	62	59	80	48	609
ANNUAL SALARY.								
Upper House ..	£ 1,000	£ ..	£ 200	£ (a)	£ 400	£ 600	£ (b) 370-500	..
Lower House ..	£ 1,000	£ 670	£ 500	£ 650	£ 400	£ 600	£ (b) 400-500	..

(a) Abolished in 1922.

(b) According to area of electorate and distance from the Capital.

The use of the expressions "Upper House" and "Lower House" in the above statement, though not justified constitutionally, is convenient, inasmuch as the legislative chambers are known by different names in the Commonwealth and in some of the States.

6. **Enactments of the Parliament.**—In the Commonwealth, all laws are enacted in the name of the Sovereign, the Senate, and the House of Representatives. The subjects with respect to which the Commonwealth Parliament is empowered to make laws are enumerated in the Constitution Act. In the States, laws are enacted in the name of the Sovereign by and with the consent of the Legislative Council (except in Queensland) and Legislative Assembly or House of Assembly. The Governor-General or the State Governor acts as Viceroy as regards giving the Royal assent to or vetoing Bills passed by the Legislatures, or reserving them for the special consideration of the Sovereign. In the States, the Councils and Assemblies are empowered generally, subject to the Commonwealth Constitution, to make laws in and for their respective States, in all cases whatsoever. Subject to certain limitations, they may alter, repeal, or vary their Constitution. Where a law of a State is inconsistent with a law of the Commonwealth the latter prevails, and the former is, to the extent of the inconsistency, invalid.

§ 2. Parliaments and Elections.

1. **Qualifications for Membership and for Franchise.**—The conspectus in § 4 of "General Government" in Year Book No. 13 contains particulars, as in 1920, relating to the legislative chambers in the Commonwealth and State Parliaments, and shows concisely the qualifications necessary for membership and for the franchise in each House. (These are, in the main, applicable in 1938, but it must be remembered that Queensland abolished the Upper House in 1922.) It has further to be remembered that in 1925 the Commonwealth Parliament passed an Act removing the disqualification on racial grounds from (a) natives of British India and (b) persons who have become naturalized. Disqualification of persons otherwise eligible, either as members or voters, is generally on the usual grounds of being of unsound mind or attainted of treason, being convicted of certain offences, and, as regards membership, on the grounds of holding a place of profit under the Crown, being pecuniarily interested in a Government contract except as a member of an incorporated company of more than twenty-five persons, or being an undischarged bankrupt.

2. **The Federal Government.**—The Senate consists of 36 members, six being returned by each of the original federating States. Members of this Chamber are elected for a term of six years, but by a provision in the Constitution half the members retire at the end of every third year, although they are eligible for re-election. In accordance with the Constitution, the total number of members of the House of Representatives must be as nearly as possible double that of the Senate. In the House of Representatives the States are represented on a population basis, and the numbers in August, 1938, were as follows:—New South Wales, 28; Victoria, 20; Queensland, 10; South Australia, 6; Western Australia, 5; Tasmania, 5; Northern Territory, 1—total, 75. The member representing the Northern Territory may join in the debates but is not entitled to vote, except on a motion for the disallowance of any ordinance of the Territory or on any amendment of any such motion. The Constitution provides for a minimum of five members for each original State. Members of the House of Representatives are elected for the duration of the Parliament, which is limited to three years. In elections for Senators, the whole State constitutes the electorate. For the purpose of elections for the House of Representatives, the State is divided into single electorates corresponding in number with the number of members to which the State is entitled. Members of both Houses are paid at the rate of £1,000 per annum. Further information regarding the Senate and the House of Representatives is given in earlier issues.

3. **Federal Elections.**—There have been fourteen complete Parliaments since the inauguration of Federation. The fifth Parliament, which was opened on the 6th July, 1913, was dissolved on the 30th July, 1914, in somewhat unusual circumstances. Under Section 57 of the Constitution, it is provided that, should the Senate fail to pass, or pass with amendments, any proposed law previously passed by the House of Representatives, and should the latter House, after an interval of three months, again pass the proposed

law, with or without the amendments of the Senate, and the Senate for a second time reject it or pass it with amendments to which the lower House will not agree, then the Governor-General may dissolve the two Houses simultaneously. For the first time in the history of the Commonwealth this deadlock between the Senate and the House of Representatives occurred in the second session of the fifth Parliament, and, in accordance with the section of the Constitution referred to above, both Houses were dissolved by the Governor-General. Until 1927 the Parliament met at Melbourne; it now meets at Canberra, the first meeting at Parliament House, Canberra, being opened by H.R.H. the Duke of York, on the 9th May, 1927. The first session of the fifteenth Parliament opened on the 30th November, 1937. Particulars regarding Commonwealth elections since 1925 will be found in the following table:—

FEDERAL ELECTIONS.

Date.	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted.		
	Males.	Fem.	Total.	Males.	Fem.	Total.	Males.	Fem.	Total.
THE SENATE.									
14th November, 1925	1,656,286	1,645,730	3,302,016	1,515,608	1,499,345	3,014,953	91.51	91.11	91.31
17th November, 1928	1,723,552	1,721,214	3,444,766	1,617,752	1,606,748	3,224,500	93.86	93.35	93.61
12th October, 1929	1,773,014	1,769,930	3,542,950	*	*	*	..	..	..
19th December, 1931	1,827,079	1,822,875	3,649,954	1,741,163	1,727,140	3,468,303	95.30	94.75	95.02
15th September, 1934	1,954,339	1,948,338	3,902,677	1,862,749	1,845,829	3,708,578	95.31	94.74	95.03
23rd October, 1937	2,043,212	2,036,826	4,080,038	1,963,979	1,957,358	3,921,337	96.12	96.10	96.11

* No election.

THE HOUSE OF REPRESENTATIVES.

(CONTESTED ELECTORATES.)

14th November, 1925	1,635,842	1,632,807	3,268,739	1,499,006	1,488,194	2,987,200	91.63	91.14	91.39
17th November, 1928	1,450,202	1,463,751	2,913,953	1,362,675	1,366,137	2,728,812	93.96	93.32	93.64
12th October, 1929	1,557,525	1,560,505	3,118,030	1,479,100	1,478,447	2,957,547	94.96	94.74	94.85
19th December, 1931	1,724,730	1,733,343	3,458,073	1,643,604	1,642,870	3,286,474	95.30	94.78	95.04
15th September, 1934	1,930,418	1,934,021	3,864,439	1,843,949	1,833,774	3,677,723	95.52	94.82	95.17
23rd October, 1937	1,928,786	1,919,234	3,848,020	1,854,779	1,844,499	3,699,269	96.16	96.11	96.13

The percentage of electors who exercised the franchise at each election rose from 53.04 for the Senate and 55.69 for the House of Representatives in 1901 to 77.69 and 78.30 respectively in 1917. The next election in 1919 showed a considerable falling off, and in 1922 the decrease was still more marked, the respective percentages for that year being 57.95 and 59.36, or very little more than those for 1901. Compulsory voting was introduced prior to the election in 1925, and an exceedingly heavy vote (over 91 per cent.) was cast in that year. At each succeeding election increases in percentage have been recorded.

4. **Federal Referenda.**—According to Section 128 of the Constitution, any proposed law for the alteration of the Constitution must, in addition to being passed by an absolute majority of each House of Parliament, be submitted to a referendum of the electors in each State, and must further be approved by a majority of the States and of the electors who voted before it can be presented for Royal Assent. Several referenda have been held from time to time, but in three cases only has any proposed law been assented to by the required majority of the electors. A statement dealing with the various referenda up to and inclusive of the year 1919, and the voting thereon was given in previous issues of the Official Year Book (see No. 18, pp. 87 to 89), but space will not permit of the incorporation of this information in the present volume. In the year 1926 a referendum was held in relation to proposed laws entitled respectively "Industry and Commerce" and "Essential Services". The result of the voting was: Industry and Commerce, votes in favour, 1,247,088; votes not in favour, 1,619,655. Essential Services, votes in favour, 1,195,502; votes not in favour, 1,597,793.

A referendum was taken in 1928 in respect of a proposed law entitled "State Debts 1928" and a majority of votes was cast in each State in favour of the proposal, the voting for the Commonwealth being as follows: in favour, 2,237,391; not in favour, 773,852.

On 6th March, 1937, proposals were submitted to the electors for the alteration of the Constitution in relation to "Aviation" and "Marketing" with the following results:—

State.	Votes in Favour.	Votes Not in Favour.	Informal Votes.
AVIATION.			
New South Wales	664,589	741,821	55,450
Victoria	675,481	362,112	36,685
Queensland	310,352	191,251	18,330
South Australia	128,582	191,831	21,031
Western Australia	100,326	110,529	10,977
Tasmania	45,616	71,518	7,882
Total	1,924,946	1,669,062	150,355
MARKETING.			
New South Wales	456,802	896,457	108,601
Victoria	468,337	537,021	68,920
Queensland	187,685	296,302	35,946
South Australia	65,364	248,502	27,578
Western Australia	57,023	148,308	16,501
Tasmania	24,597	87,798	12,621
Total	1,259,808	2,214,388	270,167

5. The Parliament of New South Wales. —(i) *Constitution.* The Parliament of New South Wales consists of two Chambers, the Legislative Assembly and the Legislative Council. The Assembly consists of ninety members, elected in single seat electoral districts, who hold their seats during the existence of the Parliament to which they are elected. The duration of Parliament is limited to three years. Until 1934 the Council was a nominee Chamber, consisting of a variable number of members appointed for life without remuneration, but as from 23rd April, 1934, the Council was reconstituted and became a House of sixty members to serve without remuneration for a term of twelve years, with one-quarter of the members retiring every third year. The electorate comprises members of both Chambers, who vote as a single electoral body at simultaneous sittings of both Chambers. At the first elections in 1933, four groups of fifteen members were elected to serve respectively twelve years, nine years, six years, and three years. Any person resident for at least three years in the Commonwealth and entitled to vote at the election of members of the Legislative Assembly is eligible for election as a member of the Council, if nominated by two electors, an elector being a member of either of the two Houses for the time being.

(ii) *Particulars of Elections.* Since the introduction of responsible government in New South Wales there have been thirty-one complete Parliaments, the first of which opened on the 22nd May, 1856, and was dissolved on the 19th December, 1857, while the thirty-first was dissolved on the 24th February, 1938. The thirty-second Parliament opened on the 12th April, 1938. The elections of 1920, 1922 and 1925 were contested on the principle of proportional representation, but a reversion to the system of single seats

and preferential voting was made at the later appeals to the people. Particulars of voting at elections from 1925 to 1938 are given below :—

LEGISLATIVE ASSEMBLY ELECTIONS, NEW SOUTH WALES.

Year.	Electors Qualified to Vote.			Electors who Voted.			Percentage of Electors who Voted in Contested Electorates.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
1925	678,749	600,331	1,330,080	480,126	435,853	924,979	72.00	66.00	69.07
1927	714,886	604,007	1,400,493	501,820	558,957	1,150,777	83.79	81.25	82.54
1930	724,471	710,314	1,440,785	682,747	673,670	1,350,423	95.00	94.79	94.94
1932	739,000	725,000	1,465,000	693,094	676,003	1,369,087	90.42	96.37	96.39
1935	769,220	750,493	1,528,713	654,383	640,300	1,294,752	90.09	95.60	95.85
1938	803,517	804,310	1,607,833	668,727	666,707	1,215,494	90.15	95.41	95.78

The principle of one elector one vote was adopted in 1894, and that of compulsory enrolment in 1921. Compulsory voting was introduced at the 1930 election, and, as the above table shows, the percentage of electors who voted in contested electorates rose to over 96 in 1932.

The franchise was extended to women (Women's Franchise Act) in 1902, and was exercised for the first time in 1904.

6. The Parliament of Victoria.—(i) *Constitution.* Both of the Victorian legislative Chambers are elective bodies, but there is a considerable difference in the number of members of each House, as well as in the qualifications necessary for members and electors. The number of members in the Upper House is thirty-four, and in the Lower House, sixty-five. In the Legislative Council the tenure of the seat is for six years, but one member for each of the seventeen provinces retires every third year, except in the case of a dissolution, when one-half of the newly-elected members hold their seats for three years only. Members of the Legislative Assembly are elected for the duration of Parliament, which is limited to three years. An elector for the Legislative Assembly may vote once only, plurality of voting having been abolished in 1899; an elector, however, qualified in more than one district, may select the one for which he desires to record his vote. A preferential system of voting (see Year Book No. 6, page 1182) was adopted for the first time in Victoria at the election held in November, 1911.

(ii) *Particulars of Elections.* Since the introduction of responsible government in Victoria there have been thirty-two complete Parliaments, the first of which opened on the 21st November, 1856, and closed on the 9th August, 1859, while the thirty-second was dissolved on the 6th September, 1937. The thirty-third Parliament was opened on the 19th October, 1937. The election for the Legislative Assembly in 1927 was the first held since the institution of compulsory voting for that House. At the Legislative Council elections held on the 12th June, 1937, eleven of the seventeen seats were contested and for the first time voting was compulsory. Particulars of voting at elections during the years 1922 to 1937 are given in the subjoined table :—

VICTORIAN ELECTIONS.

LEGISLATIVE COUNCIL.

Year.	Electors Enrolled.		Electors Enrolled In Contested Electorates.	Electors who Voted.	Percentage of Electors who Voted in Contested Electorates.
1922	..	..	353,440	161,731	47.008
1925	..	..	399,510	172,875	56.033
1928	..	..	444,278	268,164	85.372
1931	..	..	470,349	239,975	93.244
1934	..	..	469,395	160,980	47.375
1937	..	..	447,694	265,194	208,925
					78.78

VICTORIAN ELECTIONS—*continued.*

LEGISLATIVE ASSEMBLY.

Year.	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted in Contested Electorates.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
1924	433,357	467,070	900,427	190,153	180,810	370,963	63.02	55.72	59.24
1927	480,485	512,726	993,211	377,941	402,458	780,399	92.02	91.51	91.76
1929	496,996	532,174	1,029,170	308,532	330,836	639,368	94.11	93.36	93.72
1932	510,809	544,492	1,055,301	335,512	351,530	687,042	94.60	93.82	94.20
1935	532,619	566,632	1,099,251	415,081	438,389	853,470	95.00	93.82	94.30
1937	550,618	585,978	1,136,596	383,507	413,923	797,430	94.22	93.72	93.96

The franchise was extended to women by the Adult Suffrage Act 1908, while voting at elections was made compulsory for the Legislative Assembly in 1925 and for the Legislative Council in 1935.

7. *The Parliament of Queensland.*—(i) *Constitution.* As pointed out previously the Legislative Council in Queensland was abolished in 1922, the date of Royal Assent to the Act being the 23rd March, 1922. The Legislative Assembly is composed of sixty-two members, and the State is divided into that number of electoral districts. The Electoral Districts Act of 1931, assented to on the 1st October, 1931, provided that from and after the end of the twenty-fifth Parliament (dissolved on the 19th April, 1932) the number of members and electoral districts should be reduced from seventy-two to sixty-two. A system of optional preferential voting is in operation. (See Year Book No. 6, page 1183.)

(ii) *Particulars of Elections.* Since the establishment of responsible government in Queensland there have been twenty-seven complete Parliaments, the last of which was dissolved on the 5th March, 1938. Opinions differ regarding the opening date of the first Queensland Parliament. According to the Votes and Proceedings of the Legislative Assembly the House met for the first time on 22nd May, 1860, when the members were sworn and the Speaker elected. The Governor, however, was unable to be present on that date, but he duly attended on the 29th May, 1860, and delivered the Opening Address.

At the elections held in May, 1915, the principle of compulsory voting was introduced for the first time in Australia. Of the number of electors enrolled at the 1938 elections, 92.58 per cent. went to the polls. Statistics regarding elections during the years 1923 to 1938 are given below:—

QUEENSLAND LEGISLATIVE ASSEMBLY ELECTIONS.

Year.	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted in Contested Electorates.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
1923	257,001	219,476	476,477	194,287	174,980	369,267	80.72	83.96	82.23
1926	253,571	224,526	478,097	209,139	191,916	401,055	89.77	90.13	89.94
1929	270,327	239,672	509,999	228,601	209,647	438,248	89.69	91.45	90.52
1932	274,986	250,958	525,944	236,266	220,628	456,894	92.59	93.14	92.86
1935	303,018	272,270	575,288	245,331	225,427	470,758	92.55	92.89	92.71
1938	318,402	288,157	606,559	280,841	258,196	539,037	92.09	92.97	92.51

The election of 1907 was the first State election in Queensland at which women voted the privilege being conferred under the Elections Acts Amendment Act 1905.

8. **The Parliament of South Australia.**—(i) *Constitution.* In this State there is a Legislative Council composed of twenty members and a House of Assembly with thirty-nine members, both Chambers being elective. The State is divided into five districts, which return four members each to the Legislative Council, two of whom retire alternately. For the House of Assembly, thirty-nine districts return one member each. Prior to 1938 there were forty-six members representing nineteen districts. A system of preferential voting is in operation but voting is not compulsory.

(ii) *Particulars of Elections.* Since the inauguration of responsible government in South Australia there have been twenty-eight complete Parliaments, the first of which was opened on the 22nd April, 1857. The twenty-eighth Parliament opened on the 6th July, 1933, and its duration was extended from three to five years by the Constitution (Quinquennial Parliament) Act 1933. It was dissolved on the 11th February, 1938, and the twenty-ninth Parliament was opened on the 19th May, 1938. Particulars of voting at the last six elections are given below :—

SOUTH AUSTRALIAN ELECTIONS.

Year.	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted in Contested Electorates.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
LEGISLATIVE COUNCIL.									
1921	69,986	23,062	93,048	38,597	11,309	49,906	64.23	53.96	61.57
1924	67,429	22,018	89,447	36,626	10,492	47,118	65.79	54.94	63.02
1927	100,376	37,395	137,771	46,686	17,742	64,428	67.55	59.91	65.26
1930	(a)	(a)	133,274	(a)	(a)	100,040	(a)	(a)	75.06
1933	(a)	(a)	133,152	(a)	(a)	25,309	(a)	(a)	64.21
1938	(a)	(a)	129,135	(a)	(a)	91,165	(a)	(a)	70.52
HOUSE OF ASSEMBLY.									
1921	134,091	137,931	272,022	91,451	77,600	169,051	70.10	57.64	63.77
1924	141,944	147,899	289,843	87,712	73,453	161,165	69.65	56.05	62.71
1927	152,997	156,591	309,588	110,127	104,611	214,738	80.64	74.31	77.43
1930	(a)	(a)	325,244	(a)	(a)	222,819	(a)	(a)	71.36
1933	(a)	(a)	338,576	(a)	(a)	182,693	(a)	(a)	59.45
1938	(a)	(a)	364,884	(a)	(a)	223,136	(a)	(a)	63.31

(a) Not available.

South Australia was the first of the States to grant women's suffrage (under the Constitution Amendment Act 1894), the franchise being exercised for the first time at the Legislative Assembly election on the 25th April, 1896.

9. **The Parliament of Western Australia.**—(i) *Constitution.* In this State both Chambers are elective. For the Legislative Council there are thirty members, each of the ten Provinces returning three members, one of whom retires biennially. At each biennial election the member elected holds office for a term of six years, and automatically retires at the end of that period. The Legislative Assembly is composed of fifty members, one member being returned by each of the fifty electoral districts. Members of the Legislative Assembly are elected for three years.

(ii) *Particulars of Elections.* Since the establishment of responsible government in Western Australia there have been fifteen complete Parliaments, the first of which was opened on the 30th December, 1890, while the sixteenth Parliament was elected on the 15th February, 1936. The preferential system of voting in use in Western Australia is described in Year Book No. 6, page 1184. Particulars relating to more recent Assembly and Council elections are given in the tables following.

WESTERN AUSTRALIAN ELECTIONS.

Year.	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted in Contested Electorates.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
LEGISLATIVE COUNCIL.									
1928	54,822	19,076	73,898	24,877	8,151	33,028	51.99	46.75	50.59
1930	54,651	18,927	73,578	20,198	6,252	26,450	51.58	48.50	50.81
1932	57,454	19,889	77,343	17,145	5,508	22,653	56.29	48.29	54.16
1934	62,168	22,323	84,491	31,590	10,189	41,779	53.39	47.23	51.75
1936	63,407	21,987	85,394	18,479	6,394	24,873	45.03	40.03	43.62
1938	62,992	23,419	86,411	19,132	6,971	26,103	52.64	45.57	50.54

LEGISLATIVE ASSEMBLY.

1924	101,717	88,152	189,869	55,591	43,800	99,391	66.00	59.00	62.32
1927	113,072	97,877	210,949	76,307	66,199	142,506	74.32	72.42	73.42
1930	122,576	107,500	230,076	75,206	63,807	139,013	75.44	73.30	74.44
1933	124,776	112,419	237,195	96,210	89,802	186,012	90.23	91.00	90.60
1936	130,065	117,400	247,465	71,734	64,575	136,309	71.95	68.22	70.15

Women's suffrage was granted by the Electoral Act of 1899. The first woman member to be elected to an Australian Parliament was returned at the 1921 election in this State. Voting for the Legislative Assembly was made compulsory in December, 1936.

(iii) *Secession Referendum.* Under the provisions of the Secession Referendum Act, 1932, a referendum was taken on the 8th April, 1933, when the following questions were submitted to the electors :—

- (1) "Are you in favour of the State of Western Australia withdrawing from the Federal Commonwealth established under the Commonwealth of Australia Constitution Act (Imperial)?"
- (2) "Are you in favour of a Convention of Representatives of equal number from each of the Australian States being summoned for the purpose of proposing such alterations in the Constitution of the Commonwealth as may appear to such Convention to be necessary?"

The result of the voting was : Secession, votes in favour, 138,653; votes not in favour, 70,706. Convention, votes in favour, 88,275; votes not in favour, 119,031.

10. *The Parliament of Tasmania.*—(i) *Constitution.* In Tasmania there are two legislative Chambers—the Legislative Council and the House of Assembly, both bodies being elective. The Council consists of eighteen members, elected for six years and returned from fifteen districts, Hobart returning three, Launceston two, and the remaining thirteen districts sending one member each. Three members retire annually, and the Council cannot be dissolved as a whole. There are five House of Assembly districts, corresponding to the Commonwealth electoral divisions, each returning six members, who are elected under a system of proportional representation which first came into force at the 1909 elections (see Year Book No. 6, page 1185). The life of the Assembly was extended from three to five years by the Constitution Act 1936.

In 1924 and again in 1925 the House of Assembly contested, with at least temporary success, the power of the Legislative Council to amend money bills. The matter was settled by The Constitution Act 1926, which provides that all money bills shall originate in the Assembly, that all money votes shall be recommended by the Governor, and that

the Council may amend bills other than those for appropriating public moneys or fixing a rate for income or land tax. The Council has no power to insert a provision for the appropriation of money or to impose or increase any burden on the people.

(ii) *Particulars of Elections.* The first Tasmanian Parliament opened on 2nd December, 1856, and closed on 8th May, 1861. There have been twenty-five complete Parliaments since the inauguration of responsible government. Particulars of the voting at the last six elections for the House of Assembly are given hereunder :—

TASMANIAN ELECTIONS, HOUSE OF ASSEMBLY.

Year.	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted in Contested Electorates.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
1922	54,958	55,591	110,549	38,457	31,295	69,752	69.96	56.30	63.09
1925	56,667	58,234	114,901	41,322	35,959	77,281	72.92	61.81	67.25
1928	55,058	56,898	111,956	46,769	44,910	91,679	84.94	78.94	81.90
1931	59,024	59,706	118,730	56,674	56,105	112,779	96.02	93.97	94.99
1934	63,841	63,840	127,681	60,623	59,999	120,622	94.96	93.98	94.47
1937	66,223	65,778	132,001	62,880	61,580	124,460	94.95	93.62	94.29

The present members of the Legislative Council have been elected at various dates and the following particulars are given of the last contested elections in 1937 :—Number of electors on the roll, 7,339 ; number of votes recorded, 6,260 ; percentage of persons who voted to the number on the roll, 85.30.

The suffrage was granted to women under the Constitution Amendment Act 1903 and compulsory voting came into force on the passing of the Electoral Act in 1928.

§ 3. Administration and Legislation.

1. *The Commonwealth Parliaments.*—The first Parliament of the Commonwealth was convened by proclamation dated 29th April, 1901, by His Excellency the late Marquis of Linlithgow, then Earl of Hopetoun, Governor-General. It was opened on the 6th May following by H.R.H. the Duke of Cornwall and York, who had been sent to Australia for that purpose by His Majesty the King, the Rt. Hon. Sir Edmund Barton, G.C.M.G., K.C., being Prime Minister.

The following table gives the number and duration of Parliaments since Federation :—

COMMONWEALTH PARLIAMENTS.

Number of Parliament.	Date of Opening.	Date of Dissolution.
First	9th May, 1901	23rd November, 1903
Second	2nd March, 1904	5th November, 1906
Third	20th February, 1907	19th February, 1910
Fourth	1st July, 1910	23rd April, 1913
Fifth	9th July, 1913	30th July, 1914 (a)
Sixth	8th October, 1914	23rd March, 1917
Seventh	14th June, 1917	31st October, 1919
Eighth	26th February, 1920	6th November, 1922
Ninth	28th February, 1923	3rd October, 1925
Tenth	13th January, 1926	9th October, 1928
Eleventh	9th February, 1929	16th September, 1929
Twelfth	20th November, 1929	27th November, 1931
Thirteenth	17th February, 1932	7th August, 1934
Fourteenth	23rd October, 1934	21st September, 1937
Fifteenth	30th November, 1937 .. ..	.. .. .

(a) On this occasion, the Governor-General, acting on the advice of the Ministry, and under section 57 of the Constitution, granted a dissolution of both the Senate and the House of Representatives, this being the first occasion since Federation on which a dissolution of both Houses had occurred.

2. **Governors-General and Ministries.**—The following statements show the names of the several Governors-General, and the Ministries which have directed the administration of the affairs of the Commonwealth since its creation :—

(a) **GOVERNORS-GENERAL.**

- Rt. Hon. EARL OF HOPETOUN (afterwards MARQUIS OF LINLITHGOW), K.T., G.C.M.G., G.C.V.O. From 1st January, 1901, to 9th January, 1903.
 Rt. Hon. HALLAM, BARON TENNYSON, G.C.M.G. From 17th July, 1902, to 9th January, 1903 (Acting).
 Rt. Hon. HALLAM, BARON TENNYSON, G.C.M.G. From 9th January, 1903, to 21st January, 1904.
 Rt. Hon. HENRY STAFFORD, BARON NORTHCOTE, G.C.M.G., G.C.I.E., C.B. From 21st January, 1904, to 9th September, 1908.
 Rt. Hon. WILLIAM HUMBLE, EARL OF DUDLEY, G.C.B., G.C.M.G., G.C.V.O., &c. From 9th September, 1908, to 31st July, 1911.
 Rt. Hon. THOMAS, BARON DENMAN, G.C.M.G., K.C.V.O. From 31st July, 1911, to 18th May, 1914.
 Rt. Hon. SIR RONALD CRAUFERD MUNRO FERGUSON (afterwards VISCOUNT NOVAR OF RAITH), G.C.M.G. From 18th May 1914, to 6th October, 1920.
 Rt. Hon. HENRY WILLIAM, BARON FORSTER OF LEPE, G.C.M.G. From 6th October, 1920, to 8th October, 1925.
 Rt. Hon. JOHN LAWRENCE, BARON STONEHAVEN, G.C.M.G., D.S.O. From 8th October, 1925, to 22nd January, 1931.
 Lieut.-Colonel the Rt. Hon. ARTHUR HERBERT TENNYSON, BARON SOMERS, K.C.M.G., D.S.O., M.C. From 3rd October, 1930, to 22nd January, 1931 (Acting).
 Rt. Hon. SIR ISAAC ALFRED ISAACS, G.C.M.G. From 22nd January, 1931, to 22nd January, 1936.
 Brig.-General the Rt. Hon. ALEXANDER GORE ARKWRIGHT, BARON GOWRIE, V.C., P.C., G.C.M.G., C.B., D.S.O. From 23rd January, 1936.

(b) **MINISTRIES.**

- (i) BARTON MINISTRY, 1st January, 1901, to 24th September, 1903.
 (ii) DEAKIN MINISTRY, 24th September, 1903, to 27th April, 1904.
 (iii) WATSON MINISTRY, 27th April to 17th August, 1904.
 (iv) REID-MCLEAN MINISTRY, 17th August, 1904, to 5th July, 1905.
 (v) DEAKIN MINISTRY, 5th July, 1905, to 13th November, 1908.
 (vi) FISHER MINISTRY, 13th November, 1908, to 2nd June, 1909.
 (vii) DEAKIN MINISTRY, 2nd June, 1909, to 29th April, 1910.
 (viii) FISHER MINISTRY, 29th April, 1910, to 24th June, 1913.
 (ix) COOK MINISTRY, 24th June, 1913, to 17th September, 1914.
 (x) FISHER MINISTRY, 17th September, 1914, to 27th October, 1915.
 (xi) HUGHES MINISTRY, 27th October, 1915, to 14th November, 1916.
 (xii) HUGHES MINISTRY, 14th November, 1916, to 17th February, 1917.
 (xiii) HUGHES MINISTRY, 17th February, 1917, to 10th January, 1918.
 (xiv) HUGHES MINISTRY, 10th January, 1918, to 9th February, 1923.
 (xv) BRUCE-PAGE MINISTRY, 9th February, 1923, to 22nd October, 1929.
 (xvi) SCULLIN MINISTRY, 22nd October, 1929, to 6th January, 1932.

(c) **LYONS GOVERNMENT, from 6th January, 1932.**

DEPARTMENTS.	MINISTERS (from 30th November, 1937).
Prime Minister	The Rt. Hon. JOSEPH ALOYSIUS LYONS, C.H.
Minister for Commerce and Minister for Health	The Rt. Hon. SIR EARLE CHRISTMAS GRAFTON PAGE, G.C.M.G.
Attorney-General and Minister for Industry	The Rt. Hon. ROBERT GORDON MENZIES, K.C.
Minister for External Affairs, Minister in Charge of Territories and Vice-President of the Executive Council	The Rt. Hon. WILLIAM MORRIS HUGHES, K.C.
Postmaster-General	Senator the Hon. ALEXANDER JOHN McLACHLAN.
Minister for Trade and Customs	The Hon. THOMAS WAITER WHITE, D.F.C., V.D.
Treasurer and Minister in Charge of Development and Scientific and Industrial Research	The Hon. RICHARD GARDINER CASEY, D.S.O., M.C.
Minister for Defence	The Hon. HAROLD VICTOR CAMPBELL THORRY.
Minister for the Interior	The Hon. JOHN MCWEN.
Minister for Repatriation and Minister in Charge of War Service Homes	Senator The Hon. HATTIL SPENCER FOLL.
Minister without Portfolio assisting the Minister for Trade and Customs, and representing the Postmaster-General in the House of Representatives	The Hon. JOHN ARTHUR PERKINS.
Minister without Portfolio assisting the Minister for Commerce	Senator the Hon. ALLAN NICOLL MACDONALD.
Minister without Portfolio assisting the Treasurer and representing the Minister for Repatriation in the House of Representatives	The Hon. VICTOR CHARLES THOMPSON.
Minister without Portfolio assisting the Minister for Commerce	The Hon. ARCHIE GALBRAITH CAMERON

3. **State Ministries.**—The names of the members of the Ministries in each State in August, 1938, are shown in the following statement. The date on which each Ministry was sworn in is stated in parenthesis :—

STATE MINISTERS, 1937.

NEW SOUTH WALES (16th May, 1932).

<i>Premier and Colonial Treasurer—</i> HON. B. S. B. STEVENS.	<i>Minister for Social Services—</i> HON. H. M. HAWKINS, M.L.C.
<i>Deputy Premier and Minister for Transport—</i> LIEUT.-COL. THE HON. M. F. BRUXNER, D.S.O.	<i>Colonial Secretary—</i> HON. G. C. GOLLAN.
<i>Attorney-General and Vice-President of the Executive Council—</i> HON. H. E. MANNING, K.C., M.L.C.	<i>Secretary for Lands—</i> HON. C. A. SINCLAIR.
<i>Secretary for Public Works and Minister for Local Government—</i> HON. E. S. SPOONER.	<i>Minister for Agriculture—</i> MAJOR THE HON. A. D. REID, M.C.
<i>Minister for Education—</i> HON. D. H. DRUMMOND.	<i>Minister for Labour and Industry—</i> HON. A. MAIR.
<i>Minister of Justice—</i> HON. L. O. MARTIN.	<i>Honorary Minister—</i> HON. A. RICHARDSON.
<i>Minister for Health—</i> HON. H. P. FITZSIMONS.	<i>Secretary for Mines and Minister for Forests—</i> HON. R. S. VINCENT.

VICTORIA (2nd April, 1935).

<i>Premier, Treasurer and Solicitor-General—</i> HON. A. A. DUNSTAN.	<i>Chief Secretary and Attorney-General—</i> HON. H. S. BAILEY.
<i>President of the Board of Land and Works, Commissioner of Crown Lands and Survey, and Minister of Forests—</i> HON. A. E. LIND.	<i>Minister of Labour—</i> HON. E. J. MACKRELL.
<i>Minister of Water Supply, and Minister-in- Charge of Electrical Undertakings—</i> HON. F. E. OLD.	<i>Minister of Public Instruction and Minister of Public Health—</i> HON. SIR JOHN HARRIS, K.B.E., M.L.C.
<i>Minister of Agriculture, Minister of Mines, and a Vice-President of the Board of Land and Works—</i> HON. E. J. HOGAN.	<i>Commissioner of Public Works, Minister-in- Charge of Immigration, and a Vice- President of the Board of Lands and Works—</i> HON. G. L. GOUDIE, M.L.C.
<i>Minister of Transport, and a Vice-President of the Board of Land and Works—</i> HON. H. J. T. HYLAND.	<i>Ministers without Portfolios—</i> HON. G. J. TUCKETT, M.L.C. HON. H. PYE, M.L.C. HON. N. A. MARTIN.

QUEENSLAND (17th June, 1932). (Labour.)

<i>Premier and Chief Secretary—</i> HON. W. FORGAN SMITH.	<i>Treasurer—</i> HON. F. A. COOPER.
<i>Secretary for Public Lands—</i> HON. P. PEASE.	<i>Secretary for Health and Home Affairs—</i> HON. E. M. HANLON.
<i>Secretary for Labour and Industry—</i> HON. M. P. HYNES.	<i>Secretary for Mines—</i> HON. T. A. FOLEY.
<i>Attorney-General—</i> HON. J. MULLAN.	<i>Secretary for Public Works and Public Instruction.</i> HON. H. A. BRUCE.
<i>Secretary for Agriculture and Stock—</i> HON. F. W. BULCOCK.	<i>Minister for Transport—</i> HON. J. DASH.

STATE MINISTERS—*continued.*

SOUTH AUSTRALIA (18th April, 1933).

<i>Premier, Treasurer, and Minister of Immigration—</i> HON. R. L. BUTLER.	<i>Commissioner of Crown Lands, Minister of Repatriation and Minister of Irrigation—</i> HON. T. PLAYFORD.
<i>Chief Secretary, Minister of Mines, and Minister of Health—</i> HON. SIR GEORGE RITCHIE, K.C.M.G., M.L.C.	<i>Commissioner of Public Works, Minister of Railways, Minister of Marine and Minister of Local Government—</i> HON. M. McINTOSH.
<i>Attorney-General, Minister of Education, and Minister of Industry and Employment—</i> HON. S. W. JEFFRIES.	<i>Minister of Agriculture and Minister of Afforestation—</i> HON. A. P. BLESING, M.L.C.

WESTERN AUSTRALIA (15th February, 1936). (Labour.)

<i>Premier, Treasurer and Minister for Forests—</i> HON. J. C. WILLCOCK.	<i>Minister for Agriculture, Education and Police—</i> HON. F. J. S. WISE.
<i>Minister for Lands and Immigration and Acting Minister for Mines—</i> HON. M. F. TROY.	<i>Minister for Employment and Labour—</i> HON. A. R. G. HAWKE.
<i>Minister for Health—</i> HON. A. H. PANTON.	<i>Chief Secretary—</i> HON. W. H. KITSON, M.L.C.
<i>Minister for Works and Water Supplies—</i> HON. H. MILLINGTON.	<i>Minister for Justice and Railways—</i> HON. F. C. L. SMITH.
	<i>Honorary Minister—</i> HON. E. H. GRAY, M.L.C.

TASMANIA (22nd June, 1934). (Labour.)

<i>Premier (Without Portfolio)—</i> HON. A. G. OGILVIE, K.C.	<i>Minister for Lands, Works and Mines—</i> HON. T. H. DAVIES, D.S.O., M.C., R.E.
<i>Treasurer and Minister for Transport—</i> HON. E. DWYER-GRAY.	<i>Minister for Agriculture, Forestry and Agricultural Bank—</i> HON. R. COSGROVE.
<i>Attorney-General and Minister for Education—</i> HON. E. J. OGILVIE.	<i>Honorary Ministers—</i> HON. J. F. GAHA, M.L.C. (<i>Minister for Health</i>) HON. J. McDONALD, M.L.C.
<i>Chief Secretary—</i> HON. T. G. de L. D'ALTON.	

4. **The Course of Legislation.**—The actual legislation by the Commonwealth Parliament up to the end of the 1937 session is indicated in alphabetical order in "Vol. XXXV. of the Acts of the Parliament of the Commonwealth of Australia, passed during the year 1937, with Tables, Appendix and Indexes." A "Chronological Table of Acts passed from 1901 to 1937, showing how they are affected by subsequent legislation or

lapse of time" is also given, and further "A Table of Commonwealth Legislation," for the same period, "in relation to the several provisions of the Constitution," is furnished. Reference should be made to these for complete information. In previous issues of the Official Year Book an analytic table was included showing the nature of Commonwealth legislation in force at the end of the latest year available. A classification of legislation, according to its relation to the several provisions of the Constitution, up to the end of the year 1928 will be found in No. 22, pp. 76 to 84.

§ 4. Cost of Parliamentary Government.

The following statement shows the cost of parliamentary government in the Commonwealth and in each State, as well as the cost per head of population, for the year ended 30th June, 1937. In order to avoid incorrect conclusions as to the cost of the Governor-General's or Governor's establishment, it may be pointed out that a very large part of the expenditure (with the exception of the item "Governor's salary") under the head of Governor-General or Governor represents official services entirely outside the Governor's personal interests, and carried out at the request of the Government.

COST OF PARLIAMENTARY GOVERNMENT, 1936-37.

Particulars.	C'wth.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
	£	£	£	£	£	£	£	£
1. <i>Governor-General or Governor—</i>								
Governor's salary ..	10,000 ^b	4,905	5,000	3,000	5,000 ^c	2,000	2,906	32,811
Other salaries ..	1,638	3,952	719	1,564	752	818	626	10,069
Other expenses, including maintenance of house and grounds ..	a 28,464	5,212	5,852	6,775	1,964	2,461	1,197	51,925
Total ..	40,102	14,069	11,571	11,339	7,716	5,279	4,729	94,805
2. <i>Executive Council—</i>								
Salaries of Officers ..	(d)	408	520	27	..	350	(e)	1,305
Other expenses ..	(d)	52	100	68	..	..	(e)	220
Total ..	(d)	460	620	95	..	350	(e)	1,525
3. <i>Ministry—</i>								
Salaries of Ministers ..	15,130	16,724	10,752	11,742	7,750	8,179	6,094	76,371
Travelling expenses ..	2,093	..	(f)	..	..	3,276	1,364	6,733
Other ..	333	3,174	(f)	..	..	..	706	4,213
Total ..	17,556	19,898	10,752	11,742	7,750	11,455	8,164	87,317
4. <i>Parliament—</i>								
A. <i>Upper House :</i>								
President and Chairman of Committees ..	1,798	1,673	1,110	..	800	1,800	281	7,102
Allowance to members ..	32,617	..	5,938	..	6,800	16,689	7,239	69,283
Railway passes ..	5,760	11,369	9,000	..	1,212	4,286	1,092	32,719
Postage for members ..	1,990	60	150	..	57	140	(f)	2,397
B. <i>Lower House :</i>								
Speaker and Chairman of Committees ..	1,798	1,853	2,067	2,000	1,400	1,800	327	11,245
Allowance to members ..	67,283	52,368	25,453	34,320	15,021	28,268	11,081	234,607
Railway passes ..	12,000	17,920	(h)	13,147	2,788	7,330	1,826	55,011
Postage for members ..	3,900	2,698	800	2,541	342	350	(f)	10,631
Carried forward, Parliament	127,146	87,941	44,518	52,008	29,320	60,663	21,849	423,445

COST OF PARLIAMENTARY GOVERNMENT—continued.

Particulars.	C'with.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
	£	£	£	£	£	£	£	£
4. <i>Parliament</i> —continued.								
Brought forward ..	127,146	87,941	44,518	52,008	29,320	60,663	21,849	423,445
C. <i>Both Houses</i> :								
Standing Committee on Public Works—								
Remuneration of members ..	..	..	1,496	..	1,900	..	526	3,922
Salaries of staff and contingencies ..	..	615	751	..	866	..	49	2,281
Printing—								
<i>Hansard</i> ..	5,995	2,937	4,999	2,980	2,596	2,050	..	21,557
Other ..	13,005	7,591	6,700	1,549	7,711	954	3,186	40,696
Parliamentary reporting staff—								
Salaries ..	10,286	7,387	6,365	2,605	6,113	5,132	..	37,888
Contingencies ..	153	67	30	..	335	95	..	680
Library—								
Salaries ..	5,802	2,742	2,296	1,046	780	50	..	12,716
Contingencies ..	2,117	909	425	723	359	215	85	4,833
Salaries of other officers and staff ..	31,362	23,377	12,009	7,228	6,426	7,207	3,693	91,302
Other ..	12,974	167	..	..	303	280	..	13,724
D. <i>Miscellaneous</i> —								
Fuel, light, heat, power, water ..	2,003	1,221	1,519	718	1,227	110	..	94,874
Posts, telegraphs, telephones ..	1,676	3,455	1,552	847	772	280	..	
Furniture, stores, and stationery ..	3,267	980	..	419	1,424	40	..	
Other ..	57,601	4,479	127	3,628	4,338	2,007	1,184	
- Total ..	273,387	143,868	82,787	73,751	64,470	79,083	30,572	747,918
5. <i>Electoral</i> —								
Salaries ..	75,173	2,193	1,338	2,440	2,699	3,742	(e)	87,585
Cost of elections, contingencies, etc. ..	134,458	6,479	27,120	6,697	2,209	545	6,244	183,752
Total ..	209,631	8,672	28,458	9,137	4,908	4,287	6,244	271,337
6. <i>Royal Commissions, Select Committees, etc.</i> , including fees and other expenses of Commissioners, fees of counsel, costs incurred by Ministers, cost of overtime worked by Departments preparing information, bonuses, etc. ..	12,861	11,994	4,974	2,744	1,912	2,363	..	36,848
Total ..	12,861	11,994	4,974	2,744	1,912	2,363	..	36,848
GRAND TOTAL ..	553,537	198,961	139,162	108,808	86,756	102,817	49,709	1,239,750
		(k)						
Cost per head of population ..	1s. 8d.	1s. 6d.	1s. 6d.	2s. 3d.	2s. 11d.	4s. 7d.	4s. 3d.	3s. 8d.

(a) Including rent of buildings at Melbourne, £5,277; interest and sinking fund on loans, £4,691; and non-recurring works, £5,857. (b) Governor, £3,118; Lieut.-Governor, £1,787. (c) Salary of Lieut.-Governor. (d) Included under Governor-General. (e) Duties performed by Chief Secretary's Department. (f) Not available separately. (g) Both Houses. (h) Included with Upper House. (i) Includes interest and sinking fund, Parliament House, Canberra, £38,283; and maintenance of members' rooms in capital cities, £7,624. (j) Includes interest and sinking fund, Parliament House, £335. (k) Net total.

Figures showing total cost and cost per head during each of the last five years are given in the next table.

COST OF PARLIAMENTARY GOVERNMENT.

Year.	C'wlth.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
TOTAL.								
	£	£	£	£	£	£	£	£
1932-33.	366,802	232,448	90,017	95,102	81,359	94,273	32,542	992,543
1933-34.	389,937	188,728	98,721	92,763	74,420	94,249	37,909	976,727
1934-35.	535,162	223,513	126,742	126,741	81,471	92,884	40,277	1,226,790
1935-36.	443,844	189,003	108,448	98,407	78,394	113,083	40,358	1,072,437
1936-37.	553,537	198,961	139,162	108,808	86,756	102,817	49,709	1,239,750

PER HEAD OF POPULATION.

	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1932-33.	1 1	1 10	1 0	2 0	2 10	4 4	2 10	3 0
1933-34.	1 2	1 6	1 1	1 11	2 7	4 3	3 4	2 11
1934-35.	1 7	1 8	1 3	2 9	3 9	1 2	3 6	3 8
1935-36.	1 4	1 5	1 2	2 0	2 8	5 1	3 6	3 2
1936-37.	1 8	1 6	1 6	2 3	2 11	4 7	4 3	3 8

§ 5. Government Employees.

The proportion of Government employees in Australia is high compared with most countries, inasmuch as Australian Governments undertake many services such as railways, tramways, the provision of water, electric light, etc., which in other countries are left to private enterprise. At the 30th June, 1937, the number of persons so employed amounted to 356,100. Included in this total are temporary, exempt, part-time and relief workers as well as employees of statutory bodies administering works and services on behalf of the Governments. The staffs of the Commonwealth and the State Banks have also been included. Details of employment by the various Governments are as follows:—

GOVERNMENT EMPLOYEES AT 30th JUNE, 1937.

Employed by—	Permanent.		Temporary.		Total.
	Full Time.	Part Time.	Full Time.	Part Time.	
Commonwealth ..	44,673	117	17,340	10,674	72,804
New South Wales ..	72,171	341	34,680	7,061	114,253
Victoria ..	56,002	528	20,243	3,501	80,274
Queensland ..	31,327	292	3,837	294	35,750
South Australia ..	15,588	698	4,774	330	21,390
Western Australia ..	14,937	175	4,082	5,647	24,841
Tasmania ..	3,986	..	2,237	505	6,788
Australia ..	238,684	2,151	87,193	28,072	356,100

Particulars are not available in all cases regarding the sexes of part-time workers, but with their exclusion and that of relief workers, the remainder—consisting of permanent, temporary and exempt employees—was composed of 269,742 males and 45,372 females, or about one female to every six males.

§ 6. Consular Representatives of Foreign Countries in Australia.

The following tabular statement shows the number of consular representatives of foreign countries in each State for the year 1938:—

CONSULAR REPRESENTATIVES IN AUSTRALIA, 1938.

Country.		Number of Consular Representatives in—							Total. Aust.
		N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.		
Argentine Republic	..	..	I	I	I	..	I	4	
Belgium	..	..	I	I	I	I	I	8	
Bolivia	..	..	3	..	I	..	..	I	
Brazil ..	..	..	2	2	..	..	..	4	
Chile ..	..	..	2	I	..	..	..	3	
China ..	..	..	3	..	..	..	..	3	
Colombia	..	..	I	I	..	..	..	2	
Costa Rica	..	..	I	..	..	..	..	I	
Czechoslovakia	..	..	2	I	I	I	..	6	
Denmark	..	..	2	2	3	2	I	12	
Dominican Republic	..	..	I	I	..	..	..	2	
Ecuador	..	..	2	..	..	..	..	2	
Estonia	..	..	I	..	..	..	..	I	
Finland	..	..	I	I	I	I	..	5	
France..	..	..	3	I	I	I	I	8	
Germany	..	..	2	I	..	I	I	5	
Greece	..	..	2	2	I	2	2	9	
Honduras	..	..	2	..	..	..	..	2	
Italy ..	..	..	2	I	3	I	I	9	
Japan ..	..	..	2	2	I	I	I	7	
Latvia	..	..	I	I	I	I	..	4	
Liberia	..	..	..	..	..	I	..	I	
Netherlands	..	..	4	I	4	I	I	12	
Nicaragua	..	..	I	..	..	..	..	I	
Norway	..	..	3	2	4	3	4	18	
Panama	..	..	I	I	I	..	..	3	
Paraguay	..	..	I	..	..	I	..	2	
Peru ..	..	..	I	I	..	I	..	3	
Poland	..	..	I	I	..	..	..	2	
Portugal	..	..	I	I	I	I	..	5	
Rumania	..	..	I	..	..	..	..	I	
Salvador	..	..	..	I	..	..	..	I	
Siam ..	..	..	I	..	..	..	..	I	
Spain ..	..	..	I	I	..	I	..	3	
Sweden	..	..	3	2	3	3	I	13	
Switzerland	..	..	I	I	I	..	..	3	
United States of America	..	..	5	3	I	I	..	11	
Uruguay	..	..	I	I	..	..	..	2	
Venezuela	..	..	I	..	..	..	..	I	
Yugoslavia	..	..	I	I	..	I	..	3	
Total	..	..	63	36	30	24	9	184a	

(a) In addition, Northern Territory has a Consul for the Netherlands.

Countries having Consuls-General in Sydney are Belgium, Chile, China, Costa Rica, Czechoslovakia, Denmark, Ecuador, France, Germany, Greece, Honduras, Italy, Japan, Netherlands, Nicaragua, Norway, Paraguay, Poland, Rumania, Spain, Sweden and United States. Peru has a Consul-General in Melbourne.

The Consuls-General in London for Latvia, Mexico, Poland and Turkey have jurisdiction over the Commonwealth and its Territories.

Particulars of the names and addresses of the various Consular representatives, as well as their rank and year of appointment, are contained in a publication issued by the Department of External Affairs, Canberra, entitled "List of Consular Representatives of Foreign Countries in Australia and Territories under its Administration."

CHAPTER IV. LAND TENURE AND SETTLEMENT.

§ 1. Introduction.

1. **General.**—A comprehensive description of the land tenure systems of the several States was given in Official Year Book No. 4 (pp. 235 to 333), while later alterations were referred to in subsequent issues. In this chapter a summary is given of the principal features of existing land legislation. In previous issues an account of the various tenures under which Crown lands may be taken up was given. (See Year Book No. 22, pp. 133-195; also par. 2 hereunder for a conspectus of legislation at present in force.) Special sections are devoted to closer settlement, the settlement of returned soldiers on the land and advances to settlers. Particulars as to the areas of land alienated in each State and similar matter are also included.

2. **State Land Legislation.**—The legislation in force relating to Crown lands, Closer Settlement, Returned Soldiers' Settlement and other matters dealt with in this chapter is summarized in the following conspectus :—

STATE LAND LEGISLATION.

New South Wales.	Victoria.	Queensland.
CROWN LANDS ACTS.		
Crown Lands Act 1913-1935 : Western Lands Act 1901-1937 : Prickly Pear Act 1924-1934.	Land Acts 1928-1935 : Land (Crown Leases Adjustment) Act 1936	Land Acts 1910-1937 : Upper Burnett and Callide Land Settlement Acts 1923-1932 : Prickly Pear Land Acts 1923- 1936 : Sugar Workers' Selec- tions Acts 1923-1936 : Stock Routes Improvement and Animal and Vegetable Pests Destruction Acts, 1936-1937.

CLOSER SETTLEMENT ACTS.

Closer Settlement Act 1904-1937.	Closer Settlement Acts 1928- 1934.	Closer Settlement Acts 1906- 1934.
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MINING ACTS.

Mining Act 1906-1935 : Mining Leases (Validation) Act 1935.	Mines Act 1928 : Mines (Petro- leum) Act 1935.	Mining Acts 1898-1930 : Mining for Coal and Mineral Oil Act 1912 : Petroleum Acts 1923- 1929 : Miners' Homestead Leases Act 1913-1930 : Coal Mining Acts 1925-1930.
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SOLDIERS' SETTLEMENT ACTS.

Returned Soldiers' Settlement Act 1916-1935.	Closer Settlement Acts 1928- 1934.	Discharged Soldiers' Settlement Acts 1917-1932.
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ADVANCES TO SETTLERS ACTS.

Government Savings Bank Act 1906-1932 : Returned Soldiers' Settlement Act 1916-1935 : Rural Bank Agency Act 1934.	State Savings Bank Acts 1915- 1922 : Primary Products Ad- vances Acts 1919-1922 : Closer Settlement Acts 1928-1934 : Fruit and Vegetable Act 1928 : Cultivation Advances Acts 1931-1934 : Farmers Advances Act 1935.	State Advances Acts 1916-1934 : Co-operative Agricultural Pro- duction and Advances to Farmers Acts 1914-1919 : Agri- cultural Bank Acts 1923-1934 : Farmers' Assistance (Debts Adjustment) Acts 1935-1936 : Income (Unemployment Re- lief) Tax Acts 1930-1935.
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STATE LAND LEGISLATION—*continued.*

South Australia.	Western Australia.	Tasmania.
CROWN LANDS ACTS.		
Crown Lands Act 1929-1937 : Pastoral Act 1904-1935.	Land Act 1933-1937.	Crown Lands Act 1935.
CLOSER SETTLEMENT ACTS.		
Crown Lands Act 1929-1937.	Closer Settlement Act 1927.	Closer Settlement Act 1929.
MINING ACTS.		
Mining Act 1930-1931.	Mining Act 1904-1933 : Sluicing and Dredging for Gold Act 1899 : Petroleum Act 1936.	Mining Act 1917-1929 : Aid to Mining Act 1924.
SOLDIERS' SETTLEMENT ACTS.		
Discharged Soldiers' Settlement Act 1917-1935.	Discharged Soldiers' Settlement Act 1918.	Closer Settlement Act 1929.
AGRICULTURAL GRADUATES SETTLEMENT ACTS.		
Agricultural Graduates Act 1922.		
ADVANCES TO SETTLERS ACTS.		
Irrigation Act 1930-1933 : Dis- charged Soldiers' Settlement Act 1917-1935 : State Bank Act 1925-1935 : Advances to Settlers Act 1930 : Agri- cultural Graduates Act 1922 : Loans for Fencing and Water Piping Act 1930-1935.	Agricultural Bank Act 1934 : Rural Relief Fund Act 1935.	State Advances Act 1935 : Closer Settlement Act 1929 : Un- employed (Assistance to Primary Producers) Relief Act 1930-1934 : Farmers Debt Adjustment Act 1936 : Rural Rehabilitation Act 1937.

3. **Northern Territory Land Legislation.**—In the Northern Territory of Australia the legislation relating to Crown lands is embodied in the Crown Lands Ordinance 1931-1935 : that relating to mining in the Northern Territory Mining Act 1903, the Mining Ordinance 1927-1936, the Gold Dredging Act 1899, the Tin Dredging Ordinance 1911-1920, the Mineral Oil and Coal Ordinance 1922-1923, and the Encouragement of Mining Ordinance 1913-1926 ; and that relating to advances to settlers in the Encouragement of Primary Production Ordinance 1931-1934.

4. **Australian Capital Territory Land Legislation.**—In the Australian Capital Territory the Ordinances relating to Crown lands are the Leases Ordinance 1918-1936, the City Area Leases Ordinances 1936, the Church Lands Leases Ordinance 1924-1932, and the Leases (Special Purposes) Ordinance 1925-1936.

5. **Administration and Classification of Crown Lands.**—In each of the States there is a Lands Department under the direction of a responsible Cabinet Minister who is charged generally with the administration of the Acts relating to the alienation, occupation and management of Crown lands. The administrative functions of most of the Lands Departments are to some extent decentralized by the division of the States into what are usually termed Land Districts, in each of which there is a Lands Office, under the management of a Lands officer, who deals with applications for selections and other matters generally appertaining to the administration of the Acts within the particular district. In some of the States there is also a local Land Board or a Commissioner for each district or group of districts. In the Northern Territory the Land Board, under the control of the Minister for the Interior, is charged with the general administration of the Lands Ordinance and of Crown lands in the Northern Territory. In the Australian Capital Territory the administration of the Leases Ordinances is in the hands of the Department of the Interior.

Crown lands are generally classified according to their situation, the suitability of the soil for particular purposes, and the prevailing climatic and other conditions. The modes of tenure under the Acts, therefore, as well as the amount of purchase money or rent, and the conditions as to improvements and residence, vary considerably. The administration of special Acts relating to Crown lands is in some cases in the hands of a Board under the general supervision of the Minister.

In each of the States and in the Northern Territory there is also a Mines Department which is empowered under the several Acts relating to mining to grant leases and licences of Crown lands for mining and allied purposes.

6. **Classification of Tenures.**—The tabular statement which follows shows the several tenures under which Crown lands may be acquired or occupied in each State. In the Northern Territory, leases (excepting pastoral and "miscellaneous") are granted in perpetuity, pastoral and "miscellaneous" leases being restricted to periods of not more than 42 and 21 years respectively. The Lands Ordinance provides also for the grant in fee-simple of town lands, agricultural lands, garden lands and tropical lands, and for the issue of grazing, occupation and "miscellaneous" licences. The mining leases and holdings are, generally speaking, similar to those of the States. In the Australian Capital Territory leases only are issued.

STATE CROWN LANDS—TENURES.

New South Wales.	Victoria.	Queensland.
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FREE GRANTS AND RESERVATIONS.

Free Grants : Reservations.	Free Grants : Reservations.	Free Grants : Reservations.
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UNCONDITIONAL PURCHASES OF FREEHOLD.

Auction Sales :	After-auction :	Auction Sales.
Purchases :	Special Purchases :	
Improvement Purchases.		

CONDITIONAL PURCHASES OF FREEHOLD.

Residential Conditional Purchases :	Non-residential Conditional Purchases :	Additional Conditional Purchases :	Conversions of various Leasehold Tenures into Conditional Purchases :	Purchases of Town Leases, Suburban Holdings, Returned Soldiers' Special Holdings, Residential Leases, Week-end Leases.
Residential Selection Purchase Leases :	Non-residential Selection Purchase Leases :	Licences of Auriferous worked-out Lands :	Conditional Purchase Leases of Swamp or Reclaimed Lands :	Selection Purchase Leases of Mallee Lands :
Murray River Settlements :	Special Settlement Areas :	Conversions into Selections Purchase Leases.		

STATE CROWN LANDS—TENURES—*continued.*

New South Wales.	Victoria.	Queensland.
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LEASES AND LICENCES UNDER LAND ACTS.

Conditional Leases: Conditional Purchase Leases: Special Conditional Purchase Leases: Homestead Selections: Homestead Farms: Settlement Leases: Special Leases: Annual Leases: Scrub Leases: Snow Leases: Inferior Lands Leases: Crown Leases: Improvement Leases and Leases under Improvement Conditions: Occupation Licences: Leases of Town Lands: Suburban Holdings: Weekend Leases: Residential Leases: Leases in Irrigation Areas: Western Lands Leases: Forest Leases: Forest Permits: Prickly-pear Leases.	Perpetual Leases: Auriferous Lands Licences: Leases of Swamp or Reclaimed Lands: Perpetual Leases of Swamp or Reclaimed Lands: Grazing Licences: Perpetual Leases (Mallee): Miscellaneous Leases and Licences: Bee Farm Licences: Bee Range Area Licences: Eucalyptus Oil Licences: Forest Leases: Forest Licences: Forest Townships: Land (Residence Areas).	Perpetual Lease Selections: Perpetual Lease Prickly Pear Selections: Perpetual Lease Prickly Pear Development Selections: Grazing Selections: Development Grazing Selections: Prickly Pear Development Grazing Selections: Pastoral Holdings: Preferential Pastoral Holdings: Pastoral Development Holdings: Stud Holdings: Prickly-pear Leases: Forest Grazing Leases: Occupation Licences: Special Leases: Auction Perpetual Leases.
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CLOSER SETTLEMENT.

Sales by Auction and Tender: After-auction Sales and Tenders: Settlement Purchases.	Sales of Land: Conditional Purchase Leases: Conditional Purchase Leases in Mountainous Areas.	Perpetual Lease Selections: Settlement Farm Leases: Perpetual Town, Suburban and Country Leases.
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LEASES AND LICENCES UNDER MINING ACTS.

Holdings under Miners' Rights: Gold Mining Leases: Mineral Leases: Coal and Oil Mining Leases: Business Licences: Residence Areas.	Holdings under Miners' Rights: Gold Mining Leases: Mineral Leases.	Holdings under Miners' Rights: Permits to Prospect for Petroleum: Petroleum Leases: Licences to Prospect for Coal and Mineral Oil: Gold Mining Leases: Mineral Leases: Coal Mining Leases: Business Areas: Residence Areas: Miners' Homestead Leases and Miners' Homestead Perpetual Leases.
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SETTLEMENT OF DISCHARGED SOLDIERS AND SAILORS.

Soldiers' Group Purchases: Returned Soldiers' Special Holding Leases: Returned Soldiers' Special Holding Purchases: also Purchases and Leases under Crown Lands Act of lands set apart for application by discharged soldiers exclusively.	(Same Tenures as under the Land and Closer Settlement Acts.)	Perpetual Lease Selections: Perpetual Town and Suburban Leases.
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STATE CROWN LANDS—TENURES—*continued.*

South Australia.

Western Australia.

Tasmania.

FREE GRANTS AND RESERVATIONS.

Free Grants: Reservations.

Free Grants: Reservations.

Free Grants: Reservations.

UNCONDITIONAL PURCHASES OF FREEHOLD.

Auction Sales: By Private
Contract (Land passed at
Auction).

Auction Sales.

Auction Sales: After-auction
Sales: Sales of Land in Mining
Towns.

CONDITIONAL PURCHASES OF FREEHOLD.

Agreements to Purchase: Special
Agreements to Purchase
(40 years' term): Homestead
Blocks.Conditional Purchases with Resi-
dence: Conditional Purchases
without Residence: Conditional
Purchases by Direct Payment:
Conditional Purchases of Land
for Vineyards, etc.: Condi-
tional Purchases by Pastoral
Lessees: Conditional Pur-
chases of Grazing Lands:
Homestead Farms: Special
Settlement Leases.Selections for Purchase: Addi-
tional Selections for Purchase:
Sales by Auction: Sales by
Private Contract: After-
auction Sales: Special Settle-
ment Areas.

LEASES AND LICENCES UNDER LAND ACTS.

Perpetual Leases: Special Per-
petual Leases (Free Period):
Perpetual Leases of Homestead
Blocks: Miscellaneous Leases:
Licences: Pastoral Leases:
Irrigation Blocks: Town
Allotments in Irrigation Areas:
Forest Leases.Pastoral Leases: Special Leases:
Leases of Town and Suburban
Lands: Cropping Leases.Grazing Leases: Pastoral Leases:
Leases of Land covered with
Button Grass, etc.: Leases of
Mountainous Land: Miscel-
laneous Leases: Temporary
Licences: Occupation Licen-
ces: Residence Licences:
Business Licences: Forest
Leases, Licences and Permits.

CLOSER SETTLEMENT.

Sales by Auction: Agreements
to Purchase: Perpetual
Leases: Miscellaneous Leases.Conditional Purchases: Town
and Suburban Areas.Leases with Right of Purchase:
Special Sales.

LEASES AND LICENCES UNDER MINING ACTS.

Holdings under Miners' Rights:
Search Licences: Occupation
Licences: Gold Leases:
Mineral Leases: Business
Areas: Residence Areas:
Miscellaneous Leases (Salt
and Gypsum).Holdings under Miners' Rights:
Gold Mining Leases: Mineral
Leases: Business Areas:
Residence Areas: Miners'
Homestead Leases.Holdings under Miners' Rights:
Prospectors' Licences: Gold
Mining Leases: Mineral
Leases.

SETTLEMENT OF DISCHARGED SOLDIERS AND SAILORS.

Perpetual Leases: Pastoral
Leases: Agreements to Pur-
chase: Miscellaneous Leases.

Ordinary Tenure: Special Tenure.

Free Grants: Ordinary Tenure:
Special Tenure.

AGRICULTURAL GRADUATES SETTLEMENT.

Agreements to Purchase: Per-
petual Leases.

§ 2. Free Grants and Reservations.

1. *New South Wales.*—(i) *Free Grants.* Crown lands may, by notification in the *Gazette*, be dedicated for public purposes and be granted therefor in fee-simple. Such lands may be placed under the care and management of trustees, not less than three in number, appointed by the Minister.

(ii) *Reservations.* Temporary reservations of Crown lands from sale or lease may be made by the Minister.

(iii) *Areas Granted and Reserved.* During the year 1936-37 the total area for which free grants were prepared was 179 acres. During the same period 309 acres were dedicated and permanently reserved, the number of separate dedications being 37.

On the 30th June, 1937, the total area reserved, including temporary reserves, was 16,860,446 acres, of which 5,325,310 acres were for travelling stock, 3,779,395 acres pending classification and survey, 2,137,538 acres for forest reserves, 889,082 acres for water and camping, 1,247,702 acres for mining, and the remainder for temporary commons, railways, recreation reserves and parks, reserves for aborigines, and miscellaneous purposes. A large proportion of the total area reserved is occupied under annual, special, scrub or forestry leases or on occupation licences or permissive occupancy, and is included under the appropriate leasehold tenures described in the following sections

2. *Victoria.*—(i) *Free Grants.* The Governor may grant, convey or otherwise dispose of Crown lands for public purposes.

(ii) *Reservations.* The Governor may temporarily or permanently reserve from sale, lease or licence any Crown lands required for public purposes, and may except any area of Crown lands from occupation for mining purposes under any miner's right.

(iii) *Areas Granted and Reserved.*—During the year 1936, 15 acres were granted without purchase, and reservations of both a permanent and temporary nature, comprising a net area of 26,107 acres, were made. At the end of 1936, the total area reserved was 8,135,595 acres, consisting of roads, 1,794,218 acres; water reserves, 309,658 acres; agricultural colleges, etc., 88,649 acres; permanent forests and timber reserves under Forests Acts, 4,071,892 acres and 732,222 acres respectively; forests and timber reserves under Land Acts, 330,283 acres; reserves in the Mallee, 410,000 acres; and other reserves, 398,673 acres.

3. *Queensland.*—(i) *Free Grants.* The Governor may grant in trust any Crown land which is or may be required for public purposes. Under the Irrigation Act, land to be used for the purpose of any undertaking under that Act may be vested in fee-simple in the Irrigation Commission.

(ii) *Reservations.* The Governor may reserve from sale or lease, either temporarily or permanently, any Crown land which is or may be required for public purposes. Reserved lands may be placed under the control of trustees who are empowered to lease the same for not more than 21 years with the approval of the Minister.

Under the State Forests and National Parks Act, the Governor may permanently reserve any Crown lands and declare them to be a State Forest or a National Park.

(iii) *Areas Granted and Reserved.* During the year 1936 the area granted in fee-simple without payment was 291 acres, the area set apart as reserves 929,800 acres, and reserves cancelled 708,694 acres. The total area reserved including roads at the end of 1936 was 21,541,019 acres, made up as follows:—timber reserves, 3,448,231 acres; State forests and national parks, 3,129,178 acres; for use of aborigines, 5,985,848 acres; streets, surveyed roads and surveyed stock routes, 3,026,490 acres; and general, 5,951,272 acres.

4. *South Australia.*—(i) *Free Grants.* The Governor may dedicate Crown lands for any public purpose and grant the fee-simple of such lands, with the exception of foreshores and land for quays, wharves or landing-places, which are inalienable in fee-simple from the Crown.

(ii) *Reservations.* The Governor may reserve Crown lands for the use and benefit of aborigines, military defence, forest reserves, railway stations, park lands or any other purpose that he may think fit.

(iii) *Areas Granted and Reserved.* During the year 1936-37 free grants were issued for a total area of 21 acres. During the same year reserves comprising 4,850 acres were proclaimed. At the 30th June, 1937, the total area of surveyed roads, railways and other reserves was 10,482,179 acres, including 14,016,000 acres in the north-west of the State set apart as an aboriginal reserve in 1921.

5. *Western Australia.*—(i) *Free Grants.* The Governor may dispose of, in such manner as for the public interest may seem best, any lands vested in the Crown for public purposes, and may grant the fee-simple of any reserve to secure the use thereof for the purpose for which such reserve was made.

(ii) *Reservations.* The Governor may reserve any lands vested in the Crown for public purposes. Areas not immediately required may be leased from year to year. Reserves may be placed under the control of a local authority or trustees, with power to lease them for a period not exceeding 21 years, or may be leased for 99 years. Temporary reserves may also be proclaimed.

(iii) *Areas Granted or Reserved.* During the year ended 30th June, 1937, a few small areas of land were granted in fee-simple, and approximately 13,826 acres were reserved for various purposes. At the 30th June, 1937, the total area reserved was 42,082,119 acres, comprising State forests, 3,138,662 acres, timber reserves, 1,764,605 acres, and other reserves, 37,178,852 acres.

6. *Tasmania.*—(i) *Free Grants.* No mention is made in the Crown Lands Act respecting free grants of land, and it is expressly stated that no lands may be disposed of as sites for religious purposes except by way of sale under the Act. Under the Returned Soldiers' Settlement Act of 1910, returned soldiers who applied prior to 31st March, 1922, were eligible to receive free grants of Crown land not exceeding £100 each in value, but these grants were conditional on the land being adequately improved.

(ii) *Reservations.* The Governor in Council may except from sale or lease, and reserve to His Majesty any Crown land for public purposes, and vest for such term as he thinks fit any land so reserved in any person or corporate body. Any breach or non-fulfilment of the conditions upon which such land is reserved renders it liable to forfeiture. A school allotment, not exceeding 5 acres in area, may also be reserved.

(iii) *Areas Granted or Reserved.* During the year ended 31st December, 1936, free leases were issued to 3 local bodies for recreation purposes, and 7 acres were reserved. The total area reserved at the end of 1936 was 1,848,607 acres, exclusive of 18,100 acres of land occupied by Commonwealth and State Departments.

7. *Northern Territory of Australia.*—(i) *Reservations.* The Governor-General may resume for public purposes any Crown lands not subject to any right of or contract for purchase, and may reserve, for the purpose for which they are resumed, the whole or any portion of the land so resumed.

(ii) *Areas Reserved.* The total area of reserves at the 30th June, 1937, was 70,602 square miles, comprising aboriginal native, 67,254 square miles; mission station, 1,609 square miles; and other reserves, 1,739 square miles.

§ 3. Unconditional Purchases of Freehold.

1. *New South Wales.*—(i) *Auction Purchases.* Crown lands, not exceeding in the aggregate 200,000 acres in any one year, may be sold by public auction in areas not exceeding half-an-acre for town lands, 20 acres for suburban lands, and 640 acres for country lands, at the minimum upset price of £8, £2 10s., and 15s. per acre respectively.

At least 10 per cent. of the purchase-money must be paid at the time of sale, and the balance within three months, or the Minister may allow the payment of such balance to be deferred for a period not exceeding 10 years, 4 per cent. interest being charged. Town blocks in irrigation areas may also be sold by auction.

(ii) *After-Auction Purchases.* In certain cases, land offered at auction and not sold may be purchased at the upset price. A deposit in accordance with the terms and conditions under which the land was previously offered must be lodged, and if the application be approved by the Minister, the balance of purchase money is payable as required by the specified terms and conditions.

(iii) *Special Purchases.* Under certain circumstances, land may be sold in fee-simple, the purchaser paying the cost of survey and of reports thereon, in addition to the purchase-money. The minimum upset price per acre is the same as in the case of land sold by auction. Areas not exceeding 5 acres in extent may be sold to recognized religious bodies and public authorities at prices determined by the local land board.

(iv) *Improvement Purchases.* The owner of improvements in land in authorized occupation by residence under any Mining or Western Lands Act of land within a gold-field or mineral field may purchase such land without competition at a price determined by the local Land Board, but at not less than £8 per acre for town lands or £2 10s. per acre for other lands. The area must not exceed $\frac{1}{4}$ acre within a town or village, or 2 acres elsewhere, and no person may purchase more than one such area within 3 miles of a similar prior purchase by him.

(v) *Areas Sold.* During the year ended 30th June, 1937, the total area sold was 4,676 acres, of which 162 acres were sold by auction and 156 acres as after-auction purchases, while 16 acres were sold as improvement purchases and 4,342 acres as special purchases including unnecessary alienated roads, 4,017 acres. The amount realized for the sale of the whole area was £83,995.

2. *Victoria.*—(i) *General.* Lands specially classed for sale by auction may be sold by auction in fee-simple, not exceeding 100,000 acres in any one year, at an upset price not less than £1 per acre. The purchaser must pay the survey fee at the time of the sale, together with a deposit of $12\frac{1}{2}$ per cent. of the whole price: the residue is payable in equal half-yearly instalments with interest. Any unsold land in a city, town or borough, areas specially classed for sale, isolated pieces of land not exceeding 50 acres in area, and sites for churches or charitable purposes, if not more than 3 acres in extent, may be sold by auction on the same terms. Swamp or reclaimed lands may also be sold by auction, subject to the condition that the owner keeps open all drains, etc., thereon.

(ii) *Areas sold at Auction and by Special Sales.* During the year 1936, a total of 2,763 acres was disposed of under this tenure, 1,832 acres being country lands, while 931 acres of town and suburban lands were sold by auction.

3. *Queensland.*—(i) *General.* From 1917 to 1929 the law precluded land being made available for any class of selection which gave the selector the right to acquire the freehold title. Amending legislation giving power to make land available under freehold tenures was passed in 1929 but this provision was repealed by the Act of 1932.

(ii) *Areas Sold, etc.* During the year 1936, 19 unconditional selections comprising 5,700 acres were made freehold.

4. *South Australia.*—(i) *Sales by Auction.* The following lands may be sold by auction for cash:—(a) special blocks; (b) Crown lands which have been offered for lease and not taken up within 2 years; (c) town lands; and (d) suburban lands, which the Governor excepts from the operations of the Land Board. A purchaser must pay 20 per cent. of the purchase money in cash, and the balance within one month or within such

extended time as the Commissioner of Crown Lands may allow. Town lands may be sold subject to the condition that they cannot be transferred or mortgaged within 6 years without the consent of the Commissioner.

(ii) *Areas Sold, etc.* During the year ended 30th June, 1937, the area of town lands and special blocks sold by auction was 149 acres. In addition, 18,037 acres were sold at fixed prices, and the purchases of 78,981 acres on credit were completed, making a total of 97,167 acres.

5. **Western Australia.**—(i) *Sales by Auction.* Town, suburban and village lands must be sold by auction after being surveyed into lots and notified in the *Gazette*. Ten per cent. of the purchase money must be paid in cash, together with the value of any improvements, and the balance in four equal quarterly instalments. Suburban land must be fenced within 2 years, and no Crown grant may be issued until the land is fenced.

(ii) *Areas Sold.* During the year ended 30th June, 1937, the area of town and suburban allotments sold by auction was 446 acres in 327 allotments.

6. **Tasmania.**—(i) *Sales by Auction.* Town lands may be sold by auction for cash or on credit. No town land, the price of which is less than £15, may be sold on credit.

(ii) *After-Auction Sales.* Town lands, not within 5 miles of any city, which, after having been offered at auction, have not been sold, may be sold at the upset prices by private contract.

(iii) *Sales of Land in Mining Towns.* Any person being the holder of a residence licence or business licence who shall be in lawful occupation of any residence area or business area, and who shall be the owner of buildings and permanent improvements upon such land of a value equal to or greater than the upset price of such area, shall be entitled to purchase such area at the upset price at any time prior to the day on which such area is to be offered for sale as advertised. The upset price for such area shall not be less than £10, exclusive of the value of improvements, cost of survey, and of grant deed. The area which may be so purchased may, with the consent of the Commissioner, exceed one-quarter of an acre, but shall not in any case exceed one-half of an acre.

§ 4. Conditional Purchases of Freehold.

1. **General.**—The various methods of obtaining Crown lands by conditional purchase in the several States are given in some detail in preceding issues of the Official Year Book (see No. 22, pp. 141–9).

2. **New South Wales.**—At the 30th June, 1937, the total number of conditional purchases in existence was 55,035, covering an area of 18,283,508 acres. The following table gives particulars of conditional purchases, including non-residential conditional purchases and special area conditional purchases, for the year ended 30th June, 1937, together with the total area for which deeds had been issued :—

CONDITIONAL PURCHASES, NEW SOUTH WALES.

Year ended 30th June—	Applications Received. (a)		Applications Confirmed. (a)		Areas for which Deeds have been issued.	
	Number.	Area.	Number.	Area.	During the Year.	To end of Year.
1937	118	Acres. 20,086	80	Acres. 10,872	Acres. 524,924	Acres. 26,674,914

(a) Exclusive of 460 conversions from other tenures comprising 102,444 acres.

3. **Victoria.**—Exclusive of selection in the Mallee country, the total area purchased conditionally in 1936 was 28,435 acres, comprising 28,033 acres with residence and 402 acres without residence. The number of selectors was 150. The total area of Mallee country purchased conditionally in the same year was 6,005 acres, all with residence, the number of selectors being 17.

In addition the final payments were made during the year on conditional purchases comprising 894 acres in country other than Mallee and 330 acres of Mallee lands.

4. **Queensland.**—(i) *General.* From 1917 until the passing of The Lands Acts Amendment Act of 1929 the law prohibited land being made available for selection with the right to acquire the freehold title. The 1929 measure, however, amended the law in this respect but a further amendment which took effect on the 1st December, 1932, precludes land being made available under any freehold tenure.

(ii) *Areas Sold, etc.* The following selections were made freehold during the year 1936 :—Agricultural farms, 201,044 acres ; Agricultural Homesteads, 126 acres ; and prickly-pear selections, 28,444 acres.

5. **South Australia.**—The land allotted under agreements to purchase during the year 1936–37 was 35,926 acres, comprising Eyre's Peninsula Railway lands 8,053 acres, Murray Railway lands 4,311 acres, Pinnaroo Railway lands 6,935 acres, closer settlement lands 2,115 acres, soldiers' acquired lands 4,841 acres, surplus lands 596 acres, soldiers' ordinary lands 747 acres, agricultural graduates lands 3,532 acres, and other Crown lands 5,096 acres.

6. **Western Australia.**—During the year ended the 30th June, 1937, the number of holdings conditionally alienated was 582, the total area involved being 520,420 acres, comprising conditional purchases by deferred payments with residence and without residence of 506,247 and 4,152 acres respectively, and free homestead farms 10,021 acres. Under the heading "Deferred payments (with residence)" are included conditional purchases of grazing lands.

In addition, Crown grants were issued during the year for the following selections, the prescribed conditions having been complied with :—Free homestead farms 18,366 acres and conditional purchases 215,757 acres.

7. **Tasmania.**—During the year 1936, conditional purchases of 18,770 acres were completed. The total area sold conditionally was 11,324 acres, comprising selections for purchase 10,920 acres, and town and suburban allotments 404 acres. The numbers of applications received and confirmed during the year were 377 and 295 respectively.

§ 5. Leases and Licences under Land Acts.

1. **General.**—Information regarding the methods of obtaining leases and licences of Crown lands in the several States and Territories is given in preceding issues of the Official Year Book (see No. 22, pp. 149–163).

2. **New South Wales.**—On the 30th June, 1937, the area of leases and licences under the control of the Department of Lands, the Water Conservation and Irrigation Commission, and the Western Lands Commission, comprised 111,045,483 acres of Crown lands, compared with 110,968,464 acres at the close of the previous year.

AREAS TAKEN UP AND OCCUPIED UNDER LEASE OR LICENCE.—NEW
SOUTH WALES, 1936-37.(a)

(a) Exclusive of mining leases and forest leases and occupation permits.

4. **Queensland.**—The total area taken up under lease or licence during the year 1936, including land in the Dawson Valley Irrigation Area, was 16,332,935 acres, made up as follows:—Pastoral leases 12,195,880 acres; occupation licences 2,000,320 acres; grazing farms (all classes), 462,028 acres; grazing homesteads (all classes), 431,453 acres; perpetual lease selections 287,918 acres; perpetual lease prickly pear selections 21,058 acres; perpetual lease prickly-pear development selections 142,815 acres; auction perpetual leases—town 156 acres, suburban 28 acres, and country 1,415 acres; special leases 43,899 acres; leases of reserves 25,082 acres; and forest grazing leases 711,883 acres.

The gross area held at the end of the year 1936 under pastoral tenure was 383,023½ square miles.

The total areas occupied under lease or licence will be found in a table at the end of this chapter.

5. **South Australia.**—The total area leased during 1936-37 under the different forms of lease tenure was 5,151,621 acres, made up as follows:—Perpetual leases—irrigation and reclaimed lands 592 acres, and other Crown lands 50,001 acres; pastoral leases 4,724,480 acres; and miscellaneous leases—grazing and cultivation 346,548 acres.

The total areas held under lease are given in the table at the end of this chapter.

6. **Western Australia.**—The number of leases issued by the Lands Department during the year ended 30th June, 1937, was 1,062 and the total area of leases issued 3,926,225 acres, comprising pastoral leases 3,799,106 acres, special leases (including leases under Section 116 of Land Act 1933 for grazing purposes) 112,097 acres, leases of reserves 14,324 acres, and residential leases 698 acres.

The total areas leased are given in the table at the end of this chapter.

7. **Tasmania.**—The area of pastoral leases issued during the year 1936 was 93,195 acres.

The total areas leased are given in the table at the end of this chapter.

8. **Northern Territory.**—The total area held under lease, licence and permit at the 30th June, 1937, was 215,161 square miles, comprising pastoral leases 178,466 square miles, pastoral permits 696 square miles, grazing licences 35,482 square miles, agricultural leases 120 square miles, and miscellaneous leases, including water leases, 397 square miles.

9. **Australian Capital Territory.**—The number of leases granted under the City Area Leases Ordinances 1936 to the 30th June, 1937 (excluding leases surrendered and determined), was 355, representing a capital value of £184,603.

Fourteen leases have been granted under the Church Lands and Special Purposes Ordinances for church and scholastic purposes. In addition a lease in perpetuity has been granted under the Church of England Land Ordinance 1926 for church purposes.

§ 6. Leases and Licences under Mining Acts.

1. **General.**—Information regarding the various forms of leases and licences under Mining Acts in the several States and the Northern Territory is given in preceding issues of the Official Year Book (see No. 22, pp. 170-7).

2. **New South Wales.**—The following table gives particulars of operations on Crown lands for the year 1936-37:—

AREAS TAKEN UP UNDER MINING ACTS.—NEW SOUTH WALES, 1936-37.

Purposes for which Issued or Occupied.					Areas Taken up during Year.	Total Areas Occupied at End of Year.
					Acres.	Acres.
Gold-mining	..	..	..	..	5,059	16,527
Mining for other minerals	..	..	..	..	6,174	167,574
Authorities to prospect	..	..	..	..	61,461	69,681
Other purposes	..	..	..	..	198	6,951
Total	..	..	..	..	72,892	260,733

The area of land held under lease only at the 30th June, 1937, was 183,362 acres.

3. **Victoria.**—During the year 1936, 523 leases, licences, etc. (including 444 for gold-mining) were issued covering an area of 117,510 acres, the rent, fees, etc., for which amounted to £4,954. The area occupied at the end of the year was 214,404 acres, comprising 155,941 acres for gold, 44,750 acres for oil, 10,343 acres for coal and 3,361 acres for miscellaneous purposes.

4. **Queensland.**—During the year 1936, the number of miners' rights issued was 5,940, and of business licences 10. The following table gives particulars regarding the areas of lands taken up under lease or licence and the total areas occupied for the year 1936. In addition, an area estimated at 25,000 acres was at the end of 1936 held under miners' rights and dredging claims.

AREAS TAKEN UP UNDER MINING ACTS.—QUEENSLAND, 1936.

Particulars.					Areas Taken up during Year.	Total Areas Occupied at End of Year.
					Acres.	Acres.
Gold-mining	..	..	..	..	1,878	7,452
Mining for other minerals	..	..	..	..	670	23,987
Miners' homestead leases	..	..	..	..	31,212	371,343
Petroleum-prospecting permits	..	..	..	..	135,627	165,127
Total	..	..	..	..	169,387	567,909

The area of land held under lease only at the 31st December, 1936, was 411,115 acres.

5. **South Australia.**—The following table gives particulars of operations for the year 1936-37.

AREAS TAKEN UP UNDER MINING ACTS.—SOUTH AUSTRALIA, 1936-37.

Particulars.					Areas Taken up during Year.	Total Areas Occupied at End of Year.
					Acres.	Acres.
Gold-mining leases	..	..	..	..	321	2,496
Mineral and miscellaneous	..	..	..	..	16,058	66,915
Claims	..	..	..	..	10,096	13,937
Search licences and permits	..	..	..	..	1,920	44,160
Occupation licences	..	..	..	..	..	48
Total	..	..	..	..	28,395	127,556

6. **Western Australia.**—The following table gives particulars of operations for the year 1936, the figures being exclusive of holdings under miners' rights and mineral oil licences. Of the areas shown as taken up in 1936, the area under lease was 6,621 acres for gold-mining, 2,011 for mining for other minerals, 150 for miners' homesteads, and 83 for miscellaneous—a total of 11,865 acres. The balance was taken up under licences.

AREAS TAKEN UP UNDER MINING ACTS.—WESTERN AUSTRALIA, 1936.

Particulars.					Areas Taken up during Year.	Total Areas Occupied at End of Year.
					Acres.	Acres.
Gold-mining	..	..	..	..	61,869	69,505
Mining for other minerals	..	..	..	..	14,550	49,652
Other purposes	..	..	..	..	330	36,286
Total	..	..	..	..	76,749	155,443

7. *Tasmania*.—During the year 1936, the number of leases issued was 292, of which 34 were for gold-mining, covering 1,008 acres; and 131 for tin, covering 2,692 acres. The following table gives particulars for the year 1936:—

AREAS TAKEN UP UNDER MINING ACTS.—TASMANIA, 1936.

Particulars.	Areas Taken up during Year.	Total Areas Occupied at End of Year.
	Acres.	Acres.
Gold-mining	1,344	3,183
Mining for other minerals	4,708	27,921
Licences to search for coal or oil	10,100	10,900
Other purposes	373	3,021
Total	16,525	45,025

8. *Northern Territory*.—At the 30th June, 1937, there existed 19 mineral leases comprising 325 acres, and 22 gold-mining leases, comprising 800 acres. There were also 360 protected gold-mining lease applications for 12,808 acres, 120 protected mineral lease applications for 4,365 acres, 13 gold reef claims for 155 acres, 40 mineral reef claims for 569 acres, 2 dredging lease applications for 488 acres, and 23 machinery and tailings areas for 70 acres. In addition, 18 exclusive prospecting licences covering 50 square miles, and 10 mineral oil and coal licences covering 10,900 square miles were issued.

9. *Summary*.—The following table shows the areas under leases and licences for mining purposes and the total areas occupied for the years 1923, 1928 and 1934 to 1936:—

CROWN LANDS, LEASES AND LICENCES FOR MINING PURPOSES.

Year.	N.S.W. (a)	Victoria.	Q'land. (b)	S. Aust. (b)	W. Aust. (c)	Tas. (b)	Total. (d)
AREAS FOR WHICH LEASES AND LICENCES ISSUED DURING YEAR.							
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1923 ..	28,492	9,207	67,754	610,377	37,507	47,535	800,932
1928 ..	(e) 944,119	8,302	1,793,028f	196,521	47,975	23,910	3,013,855
1934 ..	11,004	57,483	117,659	36,100	102,045	8,148	332,439
1935 ..	13,580	71,368	17,399	(a) 55,799	115,386	6,830	280,362
1936 ..	72,892	117,510	169,387	(a) 28,395	76,749	16,525	481,458

TOTAL AREAS OCCUPIED AT END OF YEAR.

	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1923 ..	299,688	47,361	444,586	653,899	127,829	77,627	1,650,990
1928 ..	310,497	39,904	2,810,262	242,688	132,530	54,362	3,590,249
1934 ..	246,933	127,732	593,657	91,680	168,384	30,647	1,264,133
1935 ..	249,322	155,578	458,127	(a) 133,238	178,815	36,549	1,211,629
1936 ..	260,733	214,404	567,909	(a) 127,556	155,443	45,025	1,371,070

(a) Year ended 30th June following. (b) Exclusive of lands held under miners' rights only.
 (c) Exclusive of holdings under miners' rights and mineral oil licences. (d) Exclusive of Northern Territory.
 (e) Includes one area of 900,000 acres. (f) Mainly Petroleum-prospecting permits.

§ 7. Closer Settlement.

1. *General*.—Particulars regarding the methods of acquisition and disposal of land for closer settlement in the several States are given in preceding Year Books (see No. 22, pp. 163-9).

2. **New South Wales.**—Since the inception of closer settlement in 1905, 1,845 estates totalling 4,028,604 acres have been purchased by the Crown for purposes of closer settlement of civilians and returned soldiers. The total area set apart and the number of farms made available to 30th June, 1937, are as follows:—

CLOSER SETTLEMENT AREAS (a).—NEW SOUTH WALES.

To 30th June—	Areas.			Values.		
	Acquired Lands.	Adjoining Crown Lands.	Total.	Cost of Acquired Lands.	Value of Adjoining Crown Lands.	Total.
	Acres.	Acres.	Acres.	£	£	£
1937.. ..	4,028,694	204,416	4,233,110	14,568,595	348,353	14,916,948

(a) Includes 70 long-term leases resumed for closer settlement, but excludes areas acquired for village sites, 3,665 acres.

The following table gives particulars regarding the disposal of the farms by closer settlement purchase at the 30th June, 1937:—

CLOSER SETTLEMENT ALLOTMENTS.—NEW SOUTH WALES.

At 30th June—	Farms Allotted to Date.			Total Amount received in respect of Closer Settlement Farms.
	Number.	Area.	Capital Value.	
	No.	Acres.	£	£
1937	8,890	4,084,996	13,504,352	10,842,909

3. **Victoria.**—The following statement shows the operations under the provisions of the Closer Settlement Acts to the 30th June, 1937:—

CLOSER SETTLEMENT.—VICTORIA.

(INCLUDING IRRIGATED AREAS.)

To 30th June—	How Made Available for Settlement.										
	Total Area Acquired.	Total Cost of Purchases. (a)	Farm Allotments.	Workmen's Homes Allotments.	Agricultural Labourers' Allotments.	Town Allotments. (b)	Roads and Reserves.	Number of Farms, etc.	Total Receipts (Land and Advances).	Repayments of Principal (Land and Advances).	Area Available for Settlement at 30th June.
	Acres.	£	Acres.	Acres.	Acres.	Acres.	Acres.	No.	£	£	Acres
1937	1,428,768	10,141,001	1,188,340	792	3,484	71,080	15,613	8,758	13,369,272	4,539,047	26,557

(a) Includes value of Crown Lands taken over.

(b) Includes all land sold other than under Conditional Purchase Lease.

In the above table the area and cost of land acquired for closer settlement purposes include, in addition to 121,875 acres purchased for £1,168,331 and transferred subsequently to discharged soldiers, a total area of 405,646 acres costing £1,014,276 which was purchased originally for the settlement of discharged soldiers.

4. **Queensland.**—Separate records relating to the closer settlement of re-purchased land are no longer kept by the Land Administration Board, and the operations under this heading are now included with "Leases and Licences under Land Acts." The total area

acquired to 31st December, 1934, was 970,778 acres, costing £2,292,881. At the same date the area allotted amounted to 915,090 acres distributed over 3,048 selections, consisting of 2,155 agricultural farms, 257 unconditional selections, 544 perpetual lease selections, 9 prickly-pear selections, 6 perpetual lease prickly-pear selections and 77 settlement farm leases. An area of 13,038 acres was sold by auction.

5. **South Australia.**—The following table shows the area of land acquired for the purposes of closer settlement, and the manner in which it had been dealt with to the 30th June, 1937:—

CLOSER SETTLEMENT.—SOUTH AUSTRALIA.

To 30th June—	Area of Lands Re- purchased (exclusive of land afterwards set apart for other purposes).	Agree- ments with Covenants to Purchase.	Total Area Leased as Homestead Blocks.		Perpetual Leases.	Mis- cellaneous Leases.	Sold.	Remainder Un- occupied (including roads and land in course of allotment).
			Right of Purchase.	Perpetual Lease.				
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1937 ..	775,428	461,427	280	1,256	35,547	16,429	233,642	26,847

The total area repurchased at 30th June, 1937, was 870,022 acres at a cost of £2,840,066. Included in these figures are 64,766 acres purchased for £282,762 and afterwards set apart for discharged soldiers, 3,214 acres reserved for forest and waterworks purposes, the purchase money being £10,185, and also 26,614 acres of swamp and other lands which were purchased for £111,615 in connexion with reclamation of swamp-lands on the River Murray. Of the total area, 748,581 acres have been allotted to 2,733 persons, the average area to each being 274 acres.

6. **Western Australia.**—The total area acquired for closer settlement up to the 30th June, 1937, was 905,713 acres, costing £1,180,443. Of this area, 23,535 acres have been set aside for roads, reserves, etc., leaving a balance of £82,178 acres available for selection. Particulars of operations under the Act for the year ending 30th June, 1937, are as follows:—Area selected during the year 11,601 acres; number of farms, etc., allotted to date 1,480; total area occupied to date 752,287 acres; balance available for selection 129,891 acres; and total revenue £889,046.

7. **Tasmania.**—Up to the 30th June, 1937, 37 areas had been opened up for closer settlement. The total purchase money paid by the Government was £367,599 and the total area acquired amounted to 103,363 acres, including 12,053 acres of Crown Lands. The number of farms allotted was 331.

8. **Summary.**—The following table gives particulars of operations under the Closer Settlement Acts at the 30th June, 1937:—

CLOSER SETTLEMENT.—TOTAL AREAS ACQUIRED AND ALLOTTED AT 30th JUNE, 1937.

Particulars.	N.S.W.	Victoria.	Q'land. (d)	S. Aust.	W. Aust.	Tas.	Total.
Area acquired(a) acres	64,233,110	61,428,768	970,778	775,428	905,713	103,363	8,417,160
Purchase price (b) £	14,568,595	10,084,207	2,292,881	2,429,504	1,180,443	307,599	30,923,229
Farms, etc., { No.	(c) 8,890	(c) 8,758	3,048	2,733	1,480	331	25,249
allotted { acres	64,084,996	61,385,571	915,690	748,581	752,287	610,363	7,990,488

(a) Includes Crown lands—New South Wales, 204,416 acres; Victoria, 113,744 acres; Tasmania 12,053 acres. (b) Private lands only. (c) Includes 1,710,272 acres in New South Wales and 121,876 acres in Victoria subsequently transferred to soldier settlement, and their subdivisions into allotments. (d) As at 31st December, 1934. (e) Area acquired. Area actually allotted not available.

§ 8. Settlement of Returned Soldiers and Sailors.

1. **General.**—Information in regard to the methods adopted in each State for providing land for the settlement of returned soldiers and sailors, together with the conditions under which such land could be acquired, is given in earlier issues of the Official Year Book (see No. 13, pp. 1016–1023, and No. 18, pp. 187–189). Later modifications have been made with a view to simplifying procedure and liberalizing the conditions under which holdings may be acquired.

Particulars respecting the position of soldier settlement in each State at the latest available date are given in the paragraphs immediately following.

2. **New South Wales.**—At the 30th June, 1937, the area set apart for soldiers was 9,755,264 acres, of which 1,710,272 acres comprised acquired land purchased at a cost of £8,113,956. The number of settlers to whom farms, etc., had been allotted up to the 30th June, 1937, was 9,668. Four thousand eight hundred and five soldiers have either transferred or abandoned their farms, leaving 4,863 in occupation of 7,500,085 acres, of which 6,209,893 acres were Crown lands (including 3,790,795 acres in the Western Division taken up under the Western Lands Act), 1,290,192 acres acquired lands, and 89,917 acres within Irrigation Areas. These totals exclude 703 discharged soldiers who purchased privately-owned land with their own capital and were granted advances for the purchase of stock and plant or for effecting improvements.

3. **Victoria.**—At the 30th June, 1937, the area acquired or set apart for soldier settlement was 2,551,501 acres consisting of 1,763,241 acres of private land purchased at a cost of £13,361,266, 121,876 acres costing £1,168,331 taken over from Closer Settlement, and 666,384 acres of Crown lands valued at £547,324. Subsequently 495,872 acres valued at £4,014,276 were transferred to Closer Settlement. Up to the 30th June, 1937, the number of settlers to whom farms, etc., had been allotted was 11,820, and the number of farms, etc., allotted was 9,886 (including 800 farms originally purchased for closer settlement purposes) containing 2,422,138 acres. In addition, 1,057 share-farmers and holders of leasing agreements and private land had received assistance. The number of farms, etc., occupied at the 30th June, 1937, was 8,308 (including 941 originally purchased for closer settlement) containing 1,697,121 acres.

4. **Queensland.**—At the 30th June, 1929, the area acquired or set apart for soldier settlement was 577,633 acres, of which 41,101 acres comprised private land, purchased at a cost of £270,480. The number of farms occupied was 1,148, containing 440,992 acres. Some of these selections were acquired under the ordinary provisions of the Land Act, and do not include areas specially set apart for soldiers.

As special records are not now kept respecting the areas held by discharged soldier settlers later information cannot be given.

5. **South Australia.**—At the 30th June, 1937, the area of land acquired or set apart for soldier settlement was 1,336,612 acres, of which 1,202,653 acres comprised private land purchased at a cost of £3,863,572. These figures are exclusive of mortgages discharged, £494,770 on 360,403 acres representing 300 farms, etc., and 314 settlers. The number of soldiers to whom assistance had been granted under the Discharged Soldiers' Settlement Acts up to the 30th June, 1937, was 4,185, and the area of farms, etc. (including mortgages discharged), on which assistance had been granted was 2,746,744 acres. At the 30th June, 1937, farms, etc., occupied numbered 1,886 containing 1,485,089 acres.

6. **Western Australia.**—At the 30th June, 1937, the area of land acquired or set apart for soldier settlement was 14,287,643 acres, of which 345,110 acres comprised private land purchased at a cost of £605,076. Up to the 30th June, 1937, assistance had been given to 5,213 returned soldiers, and the Agricultural Bank held 3,480 properties as security for advances. The area held, including pastoral leases, was approximately 25,830,000 acres, and advances approved amounted to £6,655,649. The number of farms, etc., occupied by returned soldiers at the 30th June, 1937, was 2,108.

7. **Tasmania.**—At the 30th June, 1937, the area acquired or set apart for soldier settlement was 342,145 acres, of which 272,780 acres comprised private land purchased at a cost of £2,055,724. Up to the 30th June, 1937, the number of settlers to whom farms, etc., had been allotted was 2,380, and the number of farms, etc., allotted was 2,189 containing 342,145 acres. The number of farms, etc., occupied at the 30th June, 1937, was 1,531 containing 310,597 acres.

8. **Summary.**—The following table gives a summary of the area acquired, the purchase price thereof, the number of settlers assisted, and the number and area of farms occupied in all the States to the 30th June, 1937 :—

SOLDIER SETTLEMENT.—AREAS ACQUIRED, SETTLERS ASSISTED AND FARMS OCCUPIED—30th JUNE, 1937.

Particulars.	New South Wales.	Victoria.	Queensland. (c)	Sth. Australia.	Western Australia.	Tasmania.	Total.
Area acquired or set apart—							
(i) Private land acquired acres	41,710,272	61,885,117	41,101	41,202,653	345,110	272,780	5,457,033
(ii) Crown lands set apart acres	8,044,992	666,384	536,532	133,959	13,942,533	69,365	23,393,765
Total land acquired or set apart	9,755,264	62,551,501	577,633	41,336,612	14,287,643	342,145	28,850,798
Price paid by Government for private lands £	48,113,956	14,529,597	270,480	43,863,572	605,076	2,055,724	24,438,405
Number of settlers to whom farms, etc., had been allotted up to the 30th June, 1937	9,668	11,820	(g)	(e)	4,183	2,380	(g)
Farms, etc., occupied at the 30th June, 1935	4,863 (b)	8,308	1,148	1,886	2,108	1,531	19,844
	7,500,085	61,697,121	440,992	41,485,089	(g)	310,597	(g)

(a) Included with closer settlement. (b) Including 495,872 acres costing £1,014,170 subsequently transferred to closer settlement, or its subdivision into farms, etc. (c) At 30th June, 1929; later information not available. (d) Excludes mortgages discharged, £494,770 on 360,403 acres representing 300 farms, etc., and 314 settlers. (e) Number of soldiers to whom assistance had been granted under the Discharged Soldiers' Settlement Acts. (f) Including mortgages discharged. (g) Not available.

9. **Losses on Soldier Settlements.**—(i) *General.* At the Premiers' Conference in Melbourne in 1917, it was agreed that the States should undertake the work of settling on the land returned soldiers and munition and war workers, and that the Commonwealth should raise the necessary loans for the States for this purpose.

The original arrangement provided that the Commonwealth should take the responsibility of finding up to £500 per settler as working capital for improvements, implements, seed, etc., an amount which was subsequently increased to £205, together with £375 per settler for resumptions and works incidental to land settlement approved by the Commonwealth. Loans were to be advanced to the settlers by the States at reasonable rates of interest not exceeding $3\frac{1}{2}$ per cent. in the first year, increasing by $\frac{1}{2}$ per cent. each subsequent year to the full rate of interest at which the money had been raised, plus working expenses, the difference between these rates and the cost of the money to the Government to be borne equally by the Commonwealth Government and the State Government. This provision respecting interest loss was not ultimately carried out as passed, the Commonwealth Government assuming responsibility for more than one-half of the interest loss, viz., a rebate of interest equal to $2\frac{1}{2}$ per cent. per annum during a period of five years from the date of payment to the State of each instalment of loan money.

(ii) *Report by Mr. Justice Pike.* In addition to this expected loss of interest other losses have occurred in connexion with soldier settlement, and in 1927 Mr. Justice Pike, of the Land Valuation Court of New South Wales, was commissioned to report, not only on the losses, but on the principles on which financial responsibility should be divided. His report in 1929, to which reference should be made for fuller information, found that in all the negotiations concerning soldier settlement on the land the States insisted on

undivided control, and that financial responsibility went along with control except so far as the Commonwealth definitely promised to give assistance. The undertaking of the Commonwealth to share equally with the States the cost of lower interest rates to soldier settlers was made the basis of a practical compromise, and the report recommended that the total loss should be shared equally between the two parties.

The gross losses were assessed at £23,525,522 distributed amongst the States as follows:—New South Wales, £7,003,950; Victoria, £7,721,891; Queensland, £1,853,315; South Australia, £3,565,820; Western Australia, £2,050,368; and Tasmania, £1,321,169. Other concessions granted by the Commonwealth Government increased its proportion of the losses to £12,333,000.

§ 9. Tenure of Land by Aliens.

Information regarding the terms and conditions under which land can be held by aliens is contained in earlier issues of the Official Year Book (see No. 18, pp. 190–1).

§ 10. Advances to Settlers.

1. **General.**—A detailed statement regarding the terms and conditions governing advances to settlers in the several States and the Northern Territory will be found in preceding issues of the Official Year Book (see No. 22, pp. 179–186).

In this section are summarized the loans and advances made by the various Government lending agencies in the States including the transactions in lands acquired under closer and soldier settlement schemes. The balances owing on former Crown lands sold on the conditional purchase, etc., system, however, are not included.

The amounts outstanding do not represent the actual differences between the total advances and settlers' repayments, for considerable remissions of indebtedness have been made in all States as a result of reappraisements of land values and the writing down of debts.

2. **New South Wales.**—The following table gives particulars respecting advances, etc., under State Authorities to 30th June, 1937:—

ADVANCES TO SETTLERS.—NEW SOUTH WALES.

Advances.	Advances made during 1936–37.	Total Advances at 30th June, 1937.	Amount outstanding at 30th June, 1937	
			Number of Loans Current.	£
Department of Lands—	£	£		
Closer and Soldier Land Settlement	..	14,568,595	7,678	12,945,954
Soldier Settlers	420	43,194,844	3,620	1,249,800
Wire Netting	26,605	1,398,151	4,606	465,436
Prickly Pear	4,062	110,317	364	20,522
Rural Bank—				
Rural Bank Department ..	1,282,305	31,504,025	16,636	14,499,322
Government Agency Department—				
Necessitous Farmers	58,873	5,754,810	2,578	1,051,909
Unemployment Relief and Dairy Promotion	37,898	1,213,834	4,482	920,079
Farmers' Relief Agency	789,735	2,102,164	4,750	968,310
Shallow Boring	27,368	743,011	1,178	253,127
Irrigation Areas	57,976	(b)	(b)	1,487,502
Government Guarantee Agency ..	354	4,851	7	3,783
Total	2,285,596	60,594,602	45,899	33,865,744

(a) In addition, the sum of £1,891,102 has been expended on developmental works on soldiers' settlements. (b) Not available.

3. **Victoria.**—The following table gives particulars respecting advances, etc., under State Authorities to 30th June, 1937:—

ADVANCES TO SETTLERS.—VICTORIA.

Advances.	Advances made during 1936-37.	Total Advances at 30th June, 1937.	Amount outstanding at 30th June, 1937.	
			Number of Persons.	£
	£	£		
Crédit Foncier—				
Civilians	139,191	10,508,855	4,633	4,263,909
Discharged Soldiers	771	837,678	451	443,305
Treasurer—				
Cool Stores, Canneries, etc. ..	..	615,582	(b) 19	322,319
Closer Settlement Commission—				
Closer Settlement Settlers ..	209,094	220,061,113	5,181	210,162,112
Soldier Settlers	179,800	226,760,026	5,203	215,301,919
Cultivators of Land	71,018	1,450,537	979	295,880
Wire Netting	16,993	522,900	(c)	261,718
Total	616,867	60,756,691	16,466	31,051,162

(a) Represents Consolidated Debts of settlers (Section 30, Act 4091).
Co-operative Societies. (c) Not available.

(b) Companies and

4. **Queensland.**—The following table gives particulars of advances to 30th June 1937. The figures are exclusive of transactions in land:—

ADVANCES TO SETTLERS.—QUEENSLAND.

Advances.	Advances made during 1936-37.	Total Advances at 30th June, 1937.	Amount outstanding at 30th June, 1937.	
			Number of Persons.	£
	£	£		
Agricultural Bank	211,882	7,483,676	4,964	1,628,962
Discharged Soldiers' Settlement (a) ..	3,738	2,443,105	1,732	634,669
Water Facilities	..	58,079	307	46,070
Wire Netting, etc.	37,416	950,875	3,406	473,959
Seed Wheat	10,000	(b) 95,289	(c)	17,281
Drought Relief	129,119	294,458	8,265	178,084
Income (Unemployment Relief) Tax (e)	133,912	786,120	4,801	606,767
Other	..	1,525	42	506
Total	526,067	12,113,127	(d) 23,517	3,586,298

(a) Includes advances to group settlements through the Lands Department, as well as advances through the Agricultural Bank. (b) Includes accrued interest. (c) Not available. (d) Incomplete. (e) Largely for rural development (ringbarking, clearing, fencing, etc.).

5. **South Australia.**—The following table gives particulars respecting advances, etc., under State Authorities to 30th June, 1937:—

ADVANCES TO SETTLERS.—SOUTH AUSTRALIA.

Particulars.	Advances made during 1936-37.	Total Advances at 30th June, 1937.	Amount outstanding at 30th June, 1937.		Arrears of Interest at 30th June, 1937.
			Number of Persons.	£	
	£	£			£
Department of Lands—					
Advances to soldier settlers ..	32,292	4,860,803	1,159	3,152,929	771,622
Advances to blockholders ..	..	41,451	5	38	4
Advances for sheds and tanks ..	..	75,693	320	51,565	20,419
Advances under Closer Settlement Acts ..	19,817	2,385,528	1,356	1,363,725	108,966
Advances under Agricultural Graduates Settlement Act ..	11,349	41,196	23	40,047	1,204
Farmers Assistance Board—					
Advances in drought-affected areas ..	149	2,601,463	2,742	808,952	145,070
Advances under Farmers Relief Acts (a) ..	533,755	3,135,673	1,251	671,004	48,618
Irrigation Branch—					
Advances to civilians ..	2,187	264,448	402	115,432	39,312
Advances to soldier settlers ..	2,112	1,075,061	727	957,176	222,041
State Bank of South Australia (C. F. Department)	68,130	4,913,874	2,040	1,032,455	38,272
Advances to settlers for improvements ..	8,243	878,658	1,241	326,413	90,718
Advances under Vermin and Fencing Acts ..	9,925	1,346,301	7,080	466,760	34,637
Advances under Loans to Producers Act ..	17,090	321,125	326	247,759	11,884
Total	705,049	21,941,274	18,672	9,234,255	1,532,761

(a) Previously shown under Advances in drought-affected areas.

6. **Western Australia.**—The following table gives particulars respecting advances etc., under State Authorities to 30th June, 1937:—

ADVANCES TO SETTLERS.—WESTERN AUSTRALIA.

Particulars.	Advances made during year 1936-37.	Total Advances at 30th June, 1937.	Amount outstanding at 30th June, 1937.	
			Number of Persons.	£
	£	£		
Development loans	109,293	9,496,228	7,707	6,197,796
Soldier settlement loans ..	15,707	6,007,679	3,365	4,790,164
Advances to rural industries ..	..	31,017	8	44,295
Cropping advances	162,686	13,304,594	2,248	1,053,736
Group Settlement advances ..	2,488	6,259,513	1,597	1,282,866
Repurchased Estates—				
Under A.L.P. Act 1909	..	575,386	..	87,295
Soldier Settlement	..	605,076	..	192,882
Wire and Wire Netting Advances ..	5,581	513,510	2,870	593,078
Total	295,755	36,793,003	17,795	14,842,112

7. *Tasmania*.—The following table gives particulars respecting advances under State Authorities to 30th June, 1937. The figures are exclusive of the sums expended (£458,500 and £2,321,389 respectively) and the amounts outstanding (£387,068 and £1,708,433 respectively) in connexion with closer and soldier land settlement; the areas so purchased have been leased on 99 year terms having an option of purchase which the leaseholder may exercise at any time.

ADVANCES TO SETTLERS.—TASMANIA.

Advances.	Advances made during year 1936-37.	Total Advances at 30th June, 1937.	Amount outstanding at 30th June, 1937.	
			Number of Persons.	£
	£	£		
Agricultural Bank—				
State Advances Act and Rural Credits	86,462	670,124	1,050	357,951
Orchardists' Relief, 1926	..	46,832	82	4,414
Unemployed (Assistance to Primary Producers) Relief Act, 1930-1931	7,056	106,233	970	67,311
Bush Fire Relief Act, 1934	..	14,855	515	9,352
Flood Sufferers' Relief Act, 1929	..	35,523	150	10,800
Crop Losses, 1934-35	..	10,086	409	7,386
Minister for Agriculture—				
Soldier Settlers	13,356	753,996	1,283	175,115
Closer Settlers	6,323	51,128	187	24,345
Total	113,197	1,688,777	4,646	656,764

8. *Northern Territory*.—During the financial year 1936-37 the amount of £145 was advanced, the total amount advanced to 30th June, 1937, being £22,020 (approximately). The balance outstanding from 49 settlers, at 30th June, 1937, including interest, was £6,593.

9. *Summary of Advances*.—The following table gives a summary for each State and the Northern Territory to the 30th June, 1937. With the exception of Queensland, where the figures are incomplete, and Tasmania, the particulars so far as they are available represent the total sums advanced to settlers including amounts spent by the various Governments in the purchase and improvement of estates disposed of by closer settlement, etc., while the amounts outstanding reveal the present indebtedness of settlers to the Governments, including arrears of principal and interest but excluding amounts written off debts and adjustments for land revaluations:—

ADVANCES TO SETTLERS.—AUSTRALIA.

State.	Advances made during year 1936-37.	Total Advances at 30th June, 1937.	Amount outstanding at 30th June, 1937.	
			Number of Persons.	£
	£	£		
New South Wales	2,285,500	60,594,002	45,809	33,805,744
Victoria	610,867	60,750,091	16,466	31,051,162
Queensland	526,067	12,113,127	23,517	3,586,298
South Australia	705,049	21,941,274	18,672	10,767,016
Western Australia	295,755	36,793,003	17,795	14,842,112
Tasmania	113,197	1,688,777	4,646	656,764
Northern Territory	145	22,920	49	6,593
Total	4,542,676	193,910,394	127,044	94,775,689

§ 11. Alienation and Occupation of Crown Lands.

1. **General.**—The figures given in the previous parts of this chapter show separately the areas alienated, in process of alienation, or occupied under various tenures. The following tables set out in summarized form the position in regard to the tenure of land in each State, in the Northern Territory, and in the Australian Capital Territory during the latest year for which information is available. Particulars for each year from 1925 onward will be found in Commonwealth Production Bulletin, No. 31, page 9. The area unoccupied includes roads, permanent reserves, forests, etc. In some cases, lands which are permanently reserved from alienation are occupied under leases and licences, and have been included therein. Lands occupied under leases or licences for pastoral purposes are frequently held on short tenures only, and could thus be made available for settlement practically whenever required.

2. **New South Wales.**—Of the total area of New South Wales, 23.6 per cent. had been alienated at the 30th June, 1937, 10.9 per cent. was in process of alienation, 57.2 per cent. was held under leases and licences, and the remaining 8.3 per cent. was unoccupied or held by the Crown.

The following table gives particulars for the year ended 30th June, 1937 :—

ALIENATION AND OCCUPATION OF CROWN LANDS.—NEW SOUTH WALES, 30th JUNE, 1937.

Particulars.	Acres.	Particulars.	Acres.
1. Alienated.		3. Held under Leases and Licences.	
Granted and sold prior to 1862 ..	7,146,579	Homestead Selections and Grants ..	1,650,055
Sold by auction and other sales, 1862 to date ..	15,068,871	Perpetual Leases ..	26,618,004
Conditionally sold, 1862 to date	26,674,914	Long-term Leases ..	77,523,058
Granted under Volunteer Land Regulations, 1897 to date ..	172,198	Short-term Leases and Temporary Tenures ..	5,319,034
Granted for public and religious purposes ..	261,631	Forest Leases and Occupation Permits ..	1,954,804
	49,324,193	Mining Leases and Permits ..	183,362
Less lands resumed or reverted to Crown ..	2,587,349		
Total ..	46,736,844	Total ..	113,249,097
2. In Process of Alienation.		4. Unoccupied (a). Particulars of Lord Howe Island not being available the area, 3,220 acres, is included under unoccupied, (Approximate)	
Conditional purchases ..	18,283,598		
Closer settlement purchases ..	2,835,626		
Soldiers' group purchases ..	411,644		
Other forms of sale ..	110,955		
Total ..	21,641,823		16,408,736

Area of State—198,036,500 acres.

(a) Of this area only 3,620,020 acres are available for selection, the balance being reservations for roads and for various public purposes, water frontages, and river and lake surfaces.

3. **Victoria.**—The total area of the State of Victoria is 56,245,760 acres, of which 48.1 per cent. had been alienated up to the end of the year 1936; 10.7 per cent. was in process of alienation under deferred payments and closer settlement schemes; 10.3 per cent. was occupied under leases and licences; while 30.9 per cent. was unoccupied or held by the Crown.

The following table shows the distribution :—

ALIENATION AND OCCUPATION OF CROWN LANDS.—VICTORIA, 31st
DECEMBER, 1936.

Particulars.	Acres.	Particulars.	Acres.
1. <i>Alienated</i>	27,056,281	3. <i>Leases and Licences held—</i>	
2. <i>In Process of Alienation—</i>		Under Lands Department—	
Exclusive of Mallee and Closer		Perpetual Leases	82,888
Settlement Lands	1,417,919	Other Leases and Licences	33,010
Mallee Lands (exclusive of		Temporary (Yearly) Graz-	
Closer Settlement Lands) ..	3,913,287	ing Licences	5,447,387
Closer Settlement Lands ..	669,439	Under Mines Department ..	214,404
Village Settlements	16		
		Total	5,777,689
Total	6,000,661	4. <i>Occupied by the Crown or</i>	
		<i>Unoccupied (a)</i>	17,411,129

Total area of State—56,245,760 acres.

(a) These Crown lands comprise reservations for roads and for various public purposes, 8,135,595 acres; water frontages, beds of rivers, lakes, etc., and unsold land in cities, towns and boroughs 3,830,434 acres; and other lands (unoccupied) 5,445,100 acres.

4. *Queensland.*—The total area of this State is 429,120,000 acres, of which, on the 31st December, 1936, 4.6 per cent. was alienated; 1.9 per cent. was in process of alienation; and 77.7 per cent. was occupied under leases and licences. The remainder 15.8 per cent. was either unoccupied or held as reserves or for roads.

The distribution is shown in the following table :—

ALIENATION AND OCCUPATION OF CROWN LANDS.—QUEENSLAND, 31st
DECEMBER, 1936.

Particulars.	Acres.	Particulars.	Acres.
1. <i>Alienated—</i>		3. <i>Occupied under Leases and</i>	
By Purchase	19,788,274	<i>Licences—</i>	
Without Payment	91,862	Pastoral Leases	234,285,800
		Occupation Licences	9,615,080
		Grazing Selections and Settle-	
		ment Farm Leases	30,832,192
		Leases—Special Purposes ..	1,191,992
		Under Mines Department ..	411,115
		Perpetual Lease Selections,	
		Perpetual Lease Prickly-	
		pear Selections and Irriga-	
		tion Leases	5,945,521
		Auction Perpetual Leases ..	23,301
		Prickly-pear Leases	501,416
		Forest Grazing Leases	732,600
Total	19,880,136	Total	333,539,017
2. <i>In Process of Alienation</i> ..	8,052,805	4. <i>Reserves, Surveyed Roads and</i>	
		<i>Surveyed Stock Routes (a)</i> ..	21,541,019
		5. <i>Unoccupied</i>	46,107,023

Total area of State—429,120,000 acres.

(a) Includes reserves of a total area of 18,514,529 acres.

5. *South Australia.*—The area of the State of South Australia is 243,244,800 acres, and at the 30th June, 1937, 5.1 per cent. was alienated; 1.4 per cent. in process of alienation; 51.1 per cent. occupied under leases and licences; and 42.4 per cent. unoccupied or occupied by the Crown.

The subjoined table shows the distribution :—

ALIENATION AND OCCUPATION OF CROWN LANDS. SOUTH AUSTRALIA.
30th JUNE, 1937.

Particulars.	Acres.	Particulars.	Acres.
1. <i>Alienated</i> —		3. <i>Held under Lease and Licence</i> —	
Sold	12,115,176	Right of Purchase Leases ..	1,285,496
Granted for Public Purposes ..	183,474	Perpetual Leases, including	
		Irrigation Leases ..	15,804,270
		Pastoral Leases ..	104,493,714
		Other Leases and Licences ..	2,686,677
		Mining Leases and Licences ..	127,556
Total	12,298,650	Total	124,397,722
2. <i>In Process of Alienation</i> ..	3,333,058	4. <i>Area Unoccupied (a)</i> ..	103,215,370

Total area of State—243,244,800 acres.

(a) Includes surveyed roads, railways and other reserves, 16,482,179 acres; salt water lakes and lagoons, 7,680,000 acres; and fresh water lakes, 224,000 acres.

6. *Western Australia.*—The total area of Western Australia is 624,588,800 acres, of which, at the 30th June, 1937, 2.8 per cent. was alienated; 2.5 per cent. was in process of alienation; while 32.8 per cent. was occupied under leases and licences issued either by the Lands or the Mines Departments. The balance of 61.9 per cent. was unoccupied.

The following table shows the distribution :—

ALIENATION AND OCCUPATION OF CROWN LANDS.—WESTERN AUSTRALIA.
30th JUNE, 1937.

Particulars.	Acres.	Particulars.	Acres.
1. <i>Alienated</i>	17,356,114	3. <i>Leases and Licences in Force</i> —	
2. <i>In Process of Alienation</i> —		(i) Issued by Lands Department—	
Midland Railway Concessions ..	54,800	Pastoral Leases ..	201,722,737
Free Homestead Farms ..	617,366	Special Leases ..	514,923
Conditional Purchases ..	5,366,316	Leases of Reserves ..	1,044,078
Selections from the late W. A. Company ..	5,297	Residential Lots ..	6,264
Selections under the Agricultural Lands Purchase Act ..	448,043	(ii) Issued by Mines Department—	
Homestead or Grazing Leases ..	9,132,690	Gold-mining Leases ..	37,631
Poison Land Leases or Licences ..	18,220	Mineral Leases ..	38,097
Town and Suburban Lots ..	3,953	Miners' Homestead Leases ..	32,386
		(iii) Issued by Forests Department—	
		Timber Permits ..	1,664,935
Total	15,646,694	Total	205,059,057
		4. <i>Area Unoccupied (a)</i> ..	386,526,935

* Total area of State—624,588,800 acres.

(a) Includes reservations for roads and for various public purposes, 42,082,119 acres.

7. *Tasmania.*—At the end of the year 1936, 34.9 per cent. of the total area had been alienated; 2.6 per cent. was in process of alienation; 15.8 per cent. was occupied under leases and licences for either pastoral, agricultural, timber, or mining purposes, or for closer or soldier settlement; the remainder (46.7 per cent.) was unoccupied or occupied or reserved by the Crown.

The following table shows the distribution :—

**ALIENATION AND OCCUPATION OF CROWN LANDS.—TASMANIA,
31st DECEMBER, 1936.**

Particulars.	Acres.	Particulars.	Acres.
1. Alienated	5,845,608	3. Leases and Licences—continued.	
		(i) Issued by Lands Department	
		—continued.	
2. In Process of Alienation ..	442,074	Soldier Settlement ..	106,000
		Other Leases ..	131,000
3. Leases and Licences—		(ii) Issued by Mines Department	45,025
(i) Issued by Lands Department—		Total	2,653,864
Islands	105,000		
Ordinary Leased Land ..	1,901,839	4. Area Occupied by the Crown or	
Land Leased for Timber	285,000	Unoccupied (a)	7,836,454
Closer Settlement ..	80,000		

Total area of State—16,778,000 acres.

(a) Includes reservations for roads and for various public purposes, 1,848,900 acres.

8. Northern Territory.—The area of the Northern Territory is 335,116,800 acres, of which, at the 30th June, 1937, only 0.2 per cent. was alienated; 54.6 per cent. was held under leases and licences; while the remaining 45.2 per cent. was unoccupied.

The following shows the mode of occupancy of areas at the 30th June, 1937 :—

**ALIENATION AND OCCUPATION OF CROWN LANDS.—NORTHERN TERRITORY,
30th JUNE, 1937.**

Particulars.	Acres.
1. Alienated	478,085
2. Leased—	
Pastoral Leases	114,218,560
Other leases, licences, reserves and mission stations ..	68,837,147
Total	183,055,707
3. Unoccupied	151,583,008
4. Total area	335,116,800

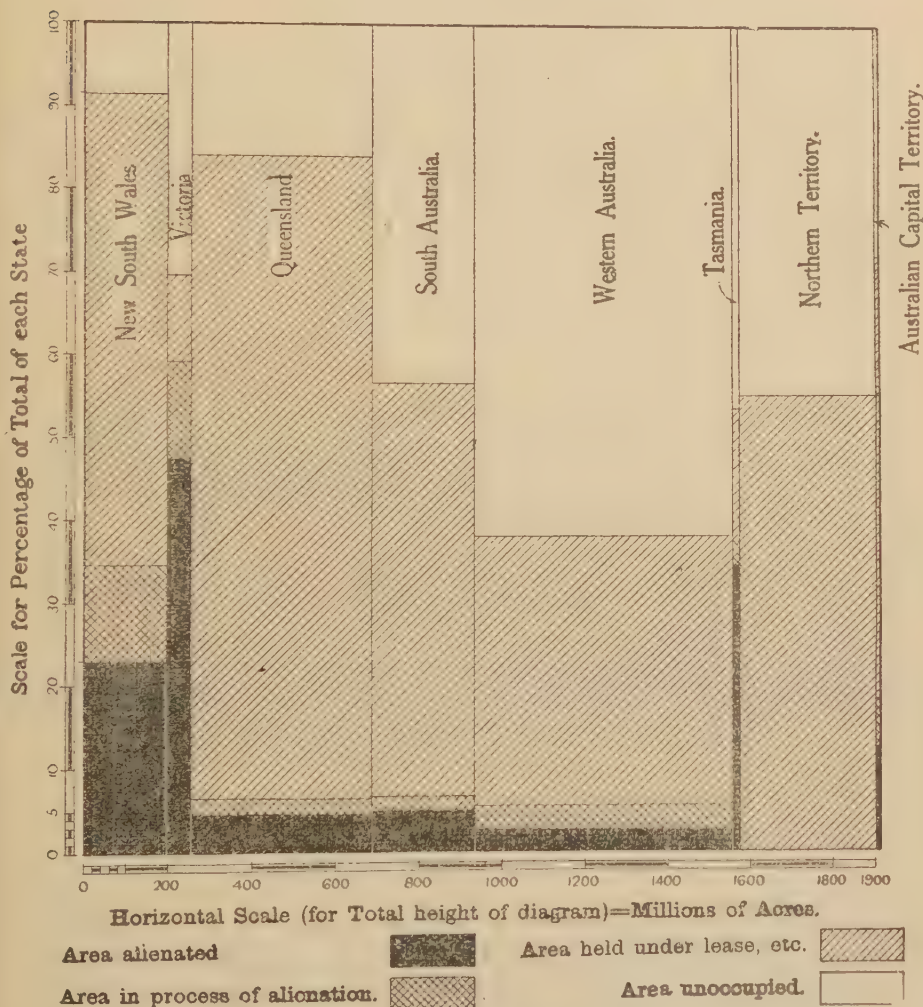
9. Australian Capital Territory.—Particulars of the alienation and occupation of Crown lands in the Territory (exclusive of Jervis Bay area) for the year 1936 are as follows :—Alienated 73,216 acres; in process of alienation 33,892 acres; leased 312,881 acres; and unoccupied 163,671 acres. The area of acquired lands was 213,854 acres. The total area of the Territory (exclusive of Jervis Bay area, 17,920 acres) is approximately 583,660 acres.

Alienated land at the end of 1936 comprised 12.5 per cent. of the total area, land in process of alienation 5.8 per cent., land held under lease 53.6 per cent., and unoccupied land 28.1 per cent. of the total area.

10. Diagram showing Condition of Public Estate.—The following diagram shows the condition of the public estate at the end of the year 1936. The square itself represents the total area of Australia, while the relative areas of individual States are shown by the vertical rectangles. The areas alienated from the State; those in process of alienation

under various systems of deferred payments; and the areas held under leases or licences are indicated by the differently-shaded areas as described in the reference given below the diagram, while the areas unoccupied are left unshaded.

LAND TENURE



§ 12. Classification of Alienated Holdings According to Size.

The classification of private holdings according to their area is of interest chiefly in relation to the efforts made by the several States in recent years to promote settlement on the land on blocks of suitable size, especially by means of the Closer Settlement Acts.

The following table gives particulars of the number and areas of holdings of alienated land and land in process of alienation at the latest date for which the information has been compiled.

CLASSIFICATION OF HOLDINGS (ONE ACRE AND OVER) IN AREA SERIES, 1933-34.

Size of Holdings.	N.S.W. (d)	Victoria.	Q'land. (b)	S. Aust. (c)	W. Aust.	Tasmania.	Aus. Cap. Ter.	Total. (a)
NUMBER.								
1 and under 50 acres	13,640	19,348	4,895	6,409	5,021	2,839	2	52,154
50 " 100 "	6,058	8,475	4,694	1,883	709	2,130	2	23,951
100 " 500 "	23,474	26,635	17,092	5,787	3,752	4,842	8	81,590
500 " 1,000 "	12,020	12,245	3,166	4,513	2,280	713	12	34,949
1,000 " 5,000 "	14,612	7,357	1,792	5,266	8,767	616	16	38,426
5,000 " 10,000 "	1,708	298	91	134	543	93	4	2,871
10,000 " 20,000 "	656	81	36	34	105	51	1	964
20,000 " 50,000 "	347	16	10	9	28	17	..	427
50,000 and over	118	..	4	..	7	4	..	133
Total	72,633	74,455	31,780	24,035	21,212	11,305	45	235,465
AREA.								
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1 and under 50 acres	262,380	374,948	114,063	118,847	60,607	64,245	66	995,156
50 " 100 "	436,384	610,113	352,728	144,657	50,198	151,286	160	1,745,526
100 " 500 "	5,878,254	6,499,014	3,932,885	1,662,229	892,893	995,080	2,123	19,862,478
500 " 1,000 "	8,561,005	8,680,358	2,204,296	3,339,608	1,784,860	484,550	8,874	25,063,551
1,000 " 5,000 "	29,873,751	12,524,655	3,121,906	9,401,700	17,595,170	1,287,530	29,452	73,834,164
5,000 " 10,000 "	11,453,609	2,013,454	628,727	929,107	3,526,220	613,434	32,124	19,196,675
10,000 " 20,000 "	8,852,257	1,105,170	488,824	459,199	1,389,597	694,975	11,002	12,998,024
20,000 " 50,000 "	10,346,737	456,843	292,706	237,112	708,240	448,620	..	12,492,258
50,000 and over	10,483,297	..	1,556,310	..	448,214	321,404	..	12,809,225
Total	86,149,674	32,264,555	12,689,445	16,292,459	26,455,999	5,061,124	83,801	178,997,057

(a) Information not available for the Northern Territory.

(b) The figures for Queensland refer to freehold land

and leased and crown lands held in conjunction with freehold which are used for general farm purposes. Holdings used solely for pastoral purposes are not included.

(c) Year 1933-34.

(d) Including 6,030,087 acres under perpetual lease.

CHAPTER V.

TRANSPORT AND COMMUNICATION.

A. SHIPPING.

§ 1. System of Record.

In the system of recording statistics of oversea shipping Australia is considered as a unit, and, therefore, only one entry and one clearance are counted for each voyage, without regard to the number of States visited.

On the arrival at, or departure from, a port in Australia, whether from or for an oversea country or from another port in Australia, the master or agent must "enter" the vessel with the Customs authorities at the port, and supply certain prescribed information in regard to the ship, passengers and cargo. At the end of each month the information so obtained is forwarded to the Commonwealth Bureau of Census and Statistics. Similar documents furnish information regarding oversea migration and interstate migration by sea. This arrangement has been in operation since the 1st July, 1924.

Since the 1st July, 1914, the Trade and Shipping of Australia has been recorded for the fiscal years ending 30th June.

In the following tables, commencing with the year 1935-36, a change has been made in the classification of sailing vessels with auxiliary engines. Particulars of these vessels, previously included in the columns headed "Steam", are now included in those headed "Sailing", as this classification is considered more correct, in view of the fact that the main method of propulsion of these vessels is sail.

§ 2. Oversea Shipping.

1. **Total Movement.**—The following table gives the number and net tonnage of oversea steam and sailing vessels entering Australian ports during the years 1926-27 to 1936-37 :—

TOTAL OVERSEA SHIPPING, ENTERED.—AUSTRALIA.

Year.	Steam.		Sailing.		Total.	
	Vessels.	Net Tons.	Vessels.	Net Tons.	Vessels.	Net Tons.
1926-27	1,598	5,512,840	26	46,030	1,624	5,558,870
1927-28	1,544	5,373,485	33	45,560	1,577	5,419,045
1928-29	1,564	5,521,725	18	29,858	1,582	5,551,583
1929-30	1,499	5,413,192	23	31,254	1,522	5,444,446
1930-31	1,517	5,562,230	17	19,287	1,534	5,581,517
1931-32	1,497	5,653,731	22	33,167	1,519	5,686,898
1932-33	1,531	5,891,878	23	41,446	1,554	5,933,324
1933-34	1,356	5,308,584	24	43,987	1,380	5,352,571
1934-35	1,559	5,951,226	23	43,024	1,582	5,994,250
1935-36	1,550	6,199,583	(a) 65	(a) 38,093	1,615	6,237,676
1936-37	1,542	6,245,767	99	28,423	1,641	6,274,190

(a) See last paragraph, § 1, above

The average tonnage per vessel entered has risen from 3,423 tons per vessel in 1926-27 to 3,823 tons in 1936-37.

Particulars regarding the total oversea movement of shipping for each year from 1822 to 1920-21 will be found in Official Year Book No. 15, p. 507.

2. **Total Oversea Shipping, States.**—The following table gives the numbers and net tonnages of vessels which entered and cleared the various States direct from and to overseas countries during the year 1936-37 :—

SHIPPING ENTERED FROM AND CLEARED TO OVERSEA COUNTRIES DIRECT.
1936-37.

State or Territory.	Entered.		Cleared.	
	Vessels.	Net Tonnage.	Vessels.	Net Tonnage.
New South Wales ..	607	2,291,425	553	2,000,553
Victoria ..	217	813,340	185	691,503
Queensland ..	261	899,715	270	1,025,412
South Australia ..	127	457,885	151	605,816
Western Australia ..	343	1,686,512	408	1,898,176
Tasmania ..	17	72,949	16	61,835
Northern Territory ..	69	52,364	73	54,286
Total ..	1,641	6,274,190	1,656	6,337,581

3. **Shipping Communication with various Countries.**—Records, as they are invariably made, of the number and tonnage of vessels arriving from and departing to particular countries may be misleading for the reason that the tonnage of a vessel can be recorded against one country only, notwithstanding that the same vessel on the same voyage may carry cargo or passengers to or from Australia for several countries. For instance, a mail steamer on a voyage from the United Kingdom to Australia, through the Suez Canal, may call at Marseilles, Genoa, Port Said, Aden and Colombo, yet can be credited only to the United Kingdom, the country where the voyage commenced, to the exclusion of all of the others from the records. Also a number of vessels touch at New Zealand ports on their voyages to and from the United States of America and Canada, but their tonnages are not included in the records of Australian shipping trade with New Zealand. Similarly, the record of shipping engaged in trade between Australia and the United Kingdom via South African ports does not show tonnage to and from South Africa, the whole of it being included in the figures for United Kingdom. In view of this defect, statistics relating to the direction of the shipping to and from Australia are restricted to the following tables in which countries situated on the main trade routes are grouped together. This grouping into larger geographical divisions to some extent avoids the limitations referred to, except, as already pointed out, in the case of Africa and New Zealand.

OVERSEA SHIPPING, AUSTRALIA—DIRECTION.

Countries.	Cargo and Ballast.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37
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NET TONNAGE ENTERED.

United Kingdom and European Countries	Cargo	1,549,889	1,044,837	1,608,613	1,812,263	1,679,282
	Ballast	946,342	485,391	376,291	281,157	232,995
New Zealand	Cargo	448,684	409,343	539,443	557,091	732,104
	Ballast	110,559	92,913	107,662	134,200	169,170
Asiatic Countries and Islands in the Pacific	Cargo	1,291,014	1,313,042	1,470,957	1,721,540	1,832,771
	Ballast	441,286	149,376	520,769	353,102	230,813
Africa	Cargo	19,129	13,394	22,535	34,983	59,136
	Ballast	144,699	143,275	143,468	172,302	194,360
North and Central America	Cargo	966,985	1,041,000	1,105,873	1,161,003	1,134,797
	Ballast	12,088	..	..	6,240	5,941
South America	Cargo	2,649	..	2,639	2,895	2,821
	Ballast	..	..	..	..	..
Cargo		4,278,350	4,481,616	4,846,060	5,290,675	5,440,911
Ballast		1,654,974	870,955	1,148,190	947,001	833,279
Total		5,933,324	5,352,571	5,994,250	6,237,676	6,274,190

NET TONNAGE CLEARED.

United Kingdom and European Countries	Cargo	2,496,405	2,495,377	2,517,126	2,719,463	2,735,452
	Ballast	11,784	8,447	20,364	16,709	3,170
New Zealand	Cargo	460,037	512,190	512,487	537,359	832,200
	Ballast	93,613	40,816	28,803	73,918	39,789
Asiatic Countries and Islands in the Pacific	Cargo	1,657,465	1,199,738	1,653,931	1,695,483	1,473,801
	Ballast	440,372	440,489	422,053	526,048	587,925
Africa	Cargo	33,567	22,220	35,573	50,108	43,172
	Ballast	2,627	2,627	..	344	2,880
North and Central America	Cargo	542,663	530,061	615,644	591,144	519,017
	Ballast	14,511	14,268	83,355	87,941	91,991
South America	Cargo	23,272	5,077	5,398	4,719	8,184
	Ballast	..	..	..	3,615	..
		Cargo	5,213,409	4,770,663	5,340,159	5,598,276
		Ballast	694,907	640,647	554,635	708,608
						725,755
Total	..	..	5,908,316	5,411,310	5,894,794	6,306,884
						6,337,581

4. Nationality of Oversea Shipping.—The greater part of the shipping visiting Australia is of British nationality. The proportion of British tonnage increased by 3.40 per cent. during 1936-37 and was the highest recorded since 1929-30, when the percentage was 73.43. Likewise the percentage of vessels arriving with cargo (86.72) was the greatest since the figure of 93.22 in 1929-30.

Particulars of the nationality of oversea shipping for the last five years are given in the following table :—

OVERSEA SHIPPING, AUSTRALIA—NATIONALITY OF VESSELS ENTERED.

Nationality.	Net Tonnage.				
	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
BRITISH—					
Australian	264,848	289,172	310,186	314,439	326,652
United Kingdom	3,218,273	2,788,464	3,137,192	3,334,332	3,447,244
Canadian	54,228	79,268	70,101	95,889	41,094
New Zealand	291,329	335,513	321,481	322,296	523,436
Other British	115,681	221,647	215,597	276,162	242,843
Cargo	2,831,878	3,032,040	3,323,552	3,732,921	3,944,272
Ballast	1,112,481	682,024	737,005	610,197	637,597
Total British	3,944,359	3,714,064	4,060,557	4,343,118	4,581,869
Per cent. on total	66.48	69.39	67.74	69.63	73.03
FOREIGN—					
Danish	107,052	75,753	48,613	54,689	53,233
Dutch	185,342	164,469	176,424	150,012	173,011
French	108,032	114,715	137,142	102,031	82,636
German	117,589	121,829	134,231	126,500	152,506
Italian	76,674	83,055	62,205	39,465	43,222
Japanese	546,088	333,109	461,400	464,311	344,304
Norwegian	394,470	335,775	426,539	462,884	439,845
Swedish	136,059	110,927	141,265	134,502	104,281
United States	245,530	247,959	240,474	233,047	199,794
Other Foreign	72,129	50,916	105,400	127,117	99,489
Cargo	1,446,472	1,449,576	1,522,508	1,557,754	1,496,639
Ballast	542,493	188,931	411,185	336,804	195,682
Total Foreign	1,988,965	1,638,507	1,933,693	1,894,558	1,692,321
Per cent. on total	33.52	30.61	32.26	30.37	26.97
Cargo	4,278,350	4,481,616	4,846,060	5,290,675	5,440,911
Per cent. on total	72.11	83.73	80.85	84.82	86.72
Ballast	1,654,974	870,955	1,148,190	947,001	833,279
Per cent. on total	27.89	16.27	19.15	15.18	13.28
Grand Total	5,933,324	5,352,571	5,994,250	6,237,676	6,274,190

The Australian tonnage which entered Australia from overseas during the year 1936-37 represented 5.21 per cent. of the total tonnage entered and was mainly confined to the New Zealand and Pacific Island trade.

§ 3. Shipping of Ports.

The total shipping tonnage—oversea, interstate and coastwise—which entered the more important ports of Australia during the year 1936-37, together with similar information in regard to some of the ports of New Zealand and of Great Britain for the year 1936, will be found in the next table :—

SHIPPING OF PORTS, AUSTRALIA, NEW ZEALAND AND THE UNITED KINGDOM.

Port.	Net Tonnage Entered.	Port.	Net Tonnage Entered.
AUSTRALIA—		ENGLAND AND WALES—	
Sydney (N.S.W.) ..	10,993,395	London ..	30,868,381
Melbourne (Vic.) ..	8,173,042	Liverpool ..	(including
Adelaide (S.A.) ..	4,930,752	Birkenhead) ..	17,085,293
Newcastle (N.S.W.) ..	4,875,732	Southampton ..	12,872,106
Brisbane (Qld.) ..	4,469,773	Tyne Ports ..	8,970,694
Fremantle (W.A.) ..	3,512,202	Cowes (including coast of	
Townsville (Qld.) ..	1,408,390	Isle of Wight) ..	7,988,368
Hobart (Tas.) ..	1,139,593	Cardiff ..	6,766,709
Kembla (N.S.W.) ..	1,123,482	Hull ..	6,016,957
Geelong (Vic.) ..	928,839	Plymouth ..	5,614,195
Whyalla (S.A.) ..	850,004	Manchester ..	(including
Cairns (Qld.) ..	728,386	Runcorn) ..	4,000,513
Burnie (Tas.) ..	673,963	Bristol ..	3,689,629
Pirie (S.A.) ..	671,889	Swansea ..	3,317,176
Mackay (Qld.) ..	576,630	Dover ..	3,228,532
Launceston (Tas.) ..	499,527	Middlesbrough ..	3,082,618
Rockhampton (Qld.) ..	492,122	Blyth ..	3,072,288
Albany (W.A.) ..	473,014	Harwich ..	2,806,434
Lincoln (S.A.) ..	434,268	Sunderland ..	2,787,528
Devonport (Tas.) ..	430,118	Portsmouth ..	2,283,230
Gladstone (Qld.) ..	367,801	Newport ..	2,104,397
Thursday Island (Qld.) ..	309,418	SCOTLAND—	
Bowen (Qld.) ..	283,709	Glasgow ..	6,367,114
NEW ZEALAND—		Greenock (including Port	
Wellington ..	3,907,073	Glasgow) ..	3,455,521
Auckland ..	3,054,979	Leith ..	2,129,479
Lyttleton ..	2,103,627	NORTHERN IRELAND—	
Otago ..	1,180,943	Belfast ..	7,495,426

Figures relating to ports of the United Kingdom have been obtained from the British Board of Trade's Statement of Navigation and Shipping for the year 1936, and those relating to New Zealand ports from the New Zealand Statistical Report on Trade and Shipping for the same year.

§ 4. Vessels Built and Registered.

1. **Vessels Built.**—The following table shows the number and tonnage of vessels built in Australia during each of the calendar years 1933 to 1937, so far as such information can be ascertained from the Shipping Registers of the various States. The Merchant Shipping Act, under which vessels are registered in Australia, does not, however, make it compulsory to register vessels under 15 tons burthen if engaged in river or coastal trade. Larger vessels are also exempt from registration if not engaged in trade. Yachts and small trading vessels may be, and frequently are, registered at the request of the owners.

VESSELS BUILT IN AUSTRALIA.
NUMBERS AND TONNAGES.

Year.	Steam.		Motor (a).		Sailing.		Pontoons, Dredges, &c.		Total.	
	Tonnages.		Tonnages.		Tonnages.		Tonnages.		Tonnages.	
	No.		No.		No.		No.		No.	
		Gross. Net.		Gross. Net.		Gross. Net.		Gross. Net.		Gross. Net.
1933 ..	..	..	4	144 118	2	20 18	1	779 645	7	943 781
1934 ..	..	..	20	623 372	5	92 91	..	..	25	715 463
1935 ..	..	..	15	377 287	1	16 14	..	..	16	393 301
1936 ..	2	719 192	12	473 316	1	9 9	..	..	15	1,201 517
1937 ..	..	..	5	107 74	..	..	..	..	5	107 74

(a) Includes vessels with auxiliary motors.

2. **Vessels Registered.**—The following table shows the number and net tonnage of steam, sailing and other vessels on the registers of the States and of the Northern Territory on the 31st December, 1937:—

VESSELS ON THE STATE REGISTERS, 31st DECEMBER, 1937.

State or Territory.	Steam and Motor.				Sailing.				Barges, Hulks, Dredges, &c., not Self-propelled.		Total.	
	Dredges and Tugs.		Other.		Propelled by Sail Only.		Fitted with Auxiliary Power.		No.	Net Tons.	No.	Net Tons.
	No.	Net Tons.	No.	Net Tons.	No.	Net Tons.	No.	Net Tons.				
New South Wales ..	39	583	307	58,434	206	6,796	293	10,160	45	11,164	890	87,137
Victoria ..	35	3,214	128	153,304	45	679	60	1,384	56	23,319	324	186,000
Queensland ..	15	2,224	25	4,140	91	1,234	64	2,723	27	3,941	222	14,262
South Australia ..	11	337	60	10,402	52	3,092	55	2,442	23	5,346	201	21,619
Western Australia ..	9	173	28	5,810	278	4,252	36	667	19	4,277	370	15,179
Tasmania ..	5	530	40	3,880	66	2,374	69	1,844	1	382	181	9,010
Northern Territory ..	..	..	..	..	15	145	5	88	..	..	20	233
Total ..	114	7,061	588	240,970	753	18,572	582	19,308	171	48,429	2,208	334,340

3. **World's Shipping Tonnage.**—The table hereunder shows the number and gross tonnage of steam and motor, and of sailing vessels owned by the most important maritime countries, together with the proportion of the grand total owned by each country:—

WORLD'S SHIPPING TONNAGE, 1st JULY, 1937.

Nationality.	Steamers and Motorships.		Sailing Vessels and Barges.		Total.		Percentage on Total.	
	No.	Gross Tonnage.	No.	Gross Tonnage.	No.	Gross Tonnage.	No.	Gross Tonnage.
Great Britain and Nthn. Ireland ..	6,903	17,436,207	361	107,734	7,264	17,543,941	23.30	26.47
Australia and New Zealand ..	525	652,809	10	4,486	535	657,295	1.71	0.99
Canada (a) ..	797	1,257,463	97	79,575	894	1,337,038	2.87	2.02
Other British ..	859	1,051,678	159	39,557	1,018	1,091,235	3.26	1.65
Total, British Empire ..	9,084	20,398,157	627	231,352	9,711	20,629,509	31.14	31.13
Belgium ..	200	420,454	..	..	200	420,454	0.64	0.63
Denmark ..	691	1,117,512	2	475	693	1,117,987	2.22	1.69
France ..	1,295	2,843,688	71	26,561	1,366	2,870,249	4.38	4.33
Germany ..	2,185	3,927,916	6	9,325	2,191	3,937,241	7.03	5.94
Greece ..	613	1,855,435	..	..	613	1,855,435	1.96	2.80
Holland ..	1,406	2,630,802	10	3,519	1,416	2,634,321	4.54	3.97
Italy ..	1,109	3,174,089	161	38,545	1,270	3,212,634	4.07	4.85
Japan ..	2,564	4,475,110	..	..	2,564	4,475,110	8.22	6.75
Norway ..	1,899	4,346,782	2	830	1,901	4,347,612	6.10	6.56
Spain ..	821	1,043,715	46	10,967	867	1,054,682	2.78	1.59
Sweden ..	1,238	1,494,432	11	7,537	1,249	1,501,969	4.01	2.26
United States of America (b) ..	3,037	11,881,234	448	548,379	3,485	12,429,613	11.18	18.75
Other Foreign Countries ..	3,382	5,662,114	275	137,094	3,657	5,799,208	11.73	8.75
Total, Foreign Countries ..	20,440	44,873,283	1,032	783,232	21,472	45,656,515	68.86	68.87
Grand Total ..	29,524	65,271,440	1,659	1,014,584	31,183	66,286,024	100.00	100.00

(a) Including Great Lakes shipping.

(b) Including Philippine Islands and Great Lakes shipping.

The foregoing figures have been compiled from *Lloyd's Register of Shipping*, and vessels of 100 tons or upwards only have been included.

§ 5. Interstate Shipping.

1. **System of Record.**—*Interstate Shipping* comprises two elements: (a) Vessels engaged solely in interstate trade; and (b) Vessels trading between Australia and oversea countries and in the course of their voyage proceeding from one State to another. (It should be mentioned that these vessels, except under special circumstances, do not now engage in interstate carrying.) No complexity enters into the record of those in category (a), but with regard to the method of recording the movements of the overseas vessels (b) some explanation is necessary. Each State desires that its shipping statistics (which are prepared in the Commonwealth Bureau of Census and Statistics) shall show in full its shipping communication with oversea countries, but at the same time it is necessary to avoid any duplication in the statistics for Australia as a whole. In order to meet these dual requirements, a vessel arriving in any State from an overseas country—say United Kingdom—*via* another State, is recorded in the second State as from United Kingdom *via* States, thus distinguishing the movement from a *direct* oversea entry. Continuing the voyage, the vessel is in the third State again recorded for the statistics of the State concerned as from United Kingdom *via* other States. On an inward voyage the *clearance* from the first State to the second State is a *clearance* interstate, and is included with interstate tonnage in conformity with the pre-federation practice of the States, and to preserve the continuity of State statistics. Thus, movements of ships which are, from the standpoint of Australia as a whole, purely coastal movements, must for the individual States be recorded as “Oversea *via* other States” or “Interstate” according to the direction of the movement. The significance of the record of these movements will be more clearly seen from the following tabular presentation of the inward and outward voyages to and from Australia of a mail steamer which, it is presumed, reaches Fremantle (Western Australia) and then proceeds to the terminal port of the voyage—Sydney (New South Wales)—*via* the States of South Australia and Victoria. From the terminal port the vessel will commence the outward voyage, and retrace its inward track.

ITINERARY OF AN OVERSEAS VESSEL ON AUSTRALIAN COAST.

Particulars.	Recorded as—	
	For the State and for Australia.	For the States.
Inward Voyage—		
Enters Fremantle from United Kingdom	Oversea direct	
Clears Fremantle for Adelaide	.. ..	Interstate direct
Enters Adelaide from United Kingdom	.. ..	.. ..
via Fremantle	.. ..	Interstate direct
Clears Adelaide for Melbourne	.. ..	Oversea <i>via</i> States
Enters Melbourne from United Kingdom	.. ..	.. ..
via Adelaide	.. ..	Interstate direct
Clears Melbourne for Sydney	.. ..	Oversea <i>via</i> States
Enters Sydney from United Kingdom	.. ..	.. ..
via Melbourne	.. ..	Interstate direct
	.. ..	Oversea <i>via</i> States
Outward Voyage—		
Clears Sydney for United Kingdom <i>via</i>		
Melbourne	.. ..	Oversea <i>via</i> States
Enters Melbourne from Sydney	.. ..	Interstate direct
Clears Melbourne for United Kingdom <i>via</i>		
Adelaide	.. ..	Oversea <i>via</i> States
Enters Adelaide from Melbourne	.. ..	Interstate direct
Clears Adelaide for United Kingdom <i>via</i>		
Fremantle	.. ..	Oversea <i>via</i> States
Enters Fremantle from Adelaide	.. ..	Interstate direct
Clears Fremantle for United Kingdom	Oversea direct	

From the method outlined above, the requirements for Australia and for the individual States are ascertained as follows: (a) The aggregate of all ships recorded for each State as "Oversea direct" gives the overseas shipping for Australia as a whole; (b) the aggregate for all ships recorded in any State as "Oversea direct" plus those recorded as "Oversea via States" gives the total overseas shipping for that State; and (c) the aggregate for all ships recorded as "Oversea via States" may also be used, together with those recorded as "Interstate direct," to furnish figures showing the total interstate movement of shipping.

It should be remembered, however, that all overseas vessels do not follow the same itinerary as the vessel in the table above.

2. **Vessels and Tonnage Entered.**—(*Interstate direct.*) The following table gives the number and tonnage of vessels recorded as having entered each State from any other State during each of the years 1932-33 to 1936-37. The shipping of the Murray River, between the States of New South Wales, Victoria and South Australia, is not included:—

INTERSTATE SHIPPING—NUMBER AND TONNAGE OF VESSELS ENTERED.

State or Territory.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
NUMBER.					
New South Wales ..	1,656	1,679	1,945	1,862	2,076
Victoria ..	1,678	1,777	1,908	1,966	2,146
Queensland ..	485	508	587	567	599
South Australia ..	644	694	842	865	924
Western Australia ..	309	326	347	358	366
Tasmania ..	984	1,008	1,035	1,065	1,216
Northern Territory ..	20	23	27	22	29
Total ..	5,776	6,015	6,691	6,705	7,356

NET TONNAGE.

New South Wales ..	4,583,979	4,004,917	5,334,778	5,105,740	5,693,751
Victoria ..	3,594,992	3,791,069	4,002,750	4,301,171	4,640,088
Queensland ..	1,184,471	1,281,334	1,410,487	1,495,200	1,616,188
South Australia ..	2,191,498	2,335,790	2,761,195	2,898,358	3,043,302
Western Australia ..	1,695,267	1,703,371	1,855,563	1,916,546	1,869,071
Tasmania ..	1,255,877	1,282,947	1,101,544	1,335,725	1,559,603
Northern Territory ..	53,553	56,694	59,011	66,710	71,057
Total ..	14,559,637	15,176,128	16,585,328	17,179,450	18,493,660

3. **Oversea Vessels Moving Interstate.**—(*Oversea via States.*) To ascertain the aggregate movement of shipping between the States during the year 1936-37 including the total interstate movements of overseas vessels, the figures in the following table

which give the number and tonnage of vessels entered from or cleared for oversea countries via other Australian States, must be added to those in the table preceding:—

SHIPPING ENTERED AND CLEARED FROM AND TO OVERSEA COUNTRIES VIA OTHER AUSTRALIAN STATES, 1936-37.

State or Territory.	Entered.		Cleared.		Total.	
	Vessels.	Net Tonnage.	Vessels.	Net Tonnage.	Vessels.	Net Tonnage.
New South Wales ..	495	2,584,473	464	2,432,211	959	5,016,684
Victoria ..	485	2,644,585	484	2,626,080	969	5,270,665
Queensland ..	267	1,623,327	237	1,410,089	504	3,033,416
South Australia ..	320	1,791,052	262	1,505,401	588	3,296,453
Western Australia ..	40	173,940	12	48,831	58	222,771
Tasmania ..	84	460,395	121	715,069	205	1,175,464
Northern Territory ..	2	2,419	..	..	2	2,419
Total ..	1,705	9,280,191	1,580	8,737,681	3,285	18,017,872

Oversea vessels moving interstate with few exceptions not engaged in the active interstate trade of Australia, but are merely proceeding to the several States in continuation of their oversea voyages.

4. **Total Interstate Movement of Shipping.**—(i) *Australia.* The appended table shows the total interstate movement of shipping including oversea vessels moving interstate for each of the years 1932-33 to 1936-37:—

TOTAL INTERSTATE MOVEMENT OF SHIPPING. —AUSTRALIA.

Year.	Entered.		Cleared.	
	Vessels.	Net Tonnage.	Vessels.	Net Tonnage.
1932-33 ..	7,226	22,397,933	7,188	22,415,557
1933-34 ..	7,463	23,114,881	7,462	23,282,301
1934-35 ..	8,279	25,369,207	8,288	25,460,522
1935-36 ..	8,502	26,857,399	8,508	26,860,842
1936-37 ..	9,061	27,773,851	9,106	27,792,951

(ii) *States.* The following table shows the number and tonnage of vessels which entered and cleared each State from and for other States during 1936-37, including the coastal movements of oversea vessels:—

INTERSTATE SHIPPING OF EACH STATE, 1936-37.

State or Territory.	Entered.		Cleared.	
	Vessels.	Net Tonnage.	Vessels.	Net Tonnage.
New South Wales ..	2,571	8,278,224	2,612	8,539,070
Victoria ..	2,631	7,285,273	2,664	7,378,528
Queensland ..	866	3,239,515	865	3,140,547
South Australia ..	1,250	4,834,354	1,249	4,748,325
Western Australia ..	412	2,043,011	353	1,855,410
Tasmania ..	1,300	2,019,998	1,332	2,062,852
Northern Territory ..	31	73,476	31	68,219
Total, Australia ..	9,061	27,773,851	9,106	27,792,951

5. **Vessels engaged Solely in Interstate Trade.**—The following table gives the number and net tonnage of vessels engaged solely in interstate trade which entered the ports of each state direct from other states during the year 1936-37 :—

VESSELS SOLELY IN INTERSTATE TRADE.—NUMBER AND TONNAGE OF VESSELS ENTERED, 1936-37.

State or Territory.	Vessels Entered.	
	No.	Net Tonnage.
New South Wales	1,605	3,301,942
Victoria	1,804	2,723,079
Queensland	430	941,906
South Australia	691	1,632,582
Western Australia	118	420,659
Tasmania	1,141	1,037,342
Northern Territory	14	17,393
Total	5,803	10,074,903

The above figures are not entirely comparable with similar figures previously published, as they have been compiled direct from the shipping returns, while former particulars were derived from calculations based on an assumption, which did not hold in all cases.

6. **Interstate and Coastal Services.**—The subjoined table gives particulars, so far as they are available, of all steamships engaged in regular interstate or coastal services at the end of each of the years 1933 to 1937 :—

INTERSTATE AND COASTAL STEAMSHIP SERVICES.—AUSTRALIA.

Particulars.	1933.	1934.	1935.	1936.	1937.
Number of companies operating ..	30	31	30	29	30
Number of steamships ..	154	155	156	160	162
Tonnage { Gross	309,309	302,897	324,891	352,661	353,280
{ Net	172,334	168,056	180,468	197,256	197,130
Horse-power (Nominal) ..	34,514	33,510	36,037	37,188	37,887
Number of { 1st class	3,939	3,914	4,311	4,450	4,410
passengers					
for which { 2nd class and steer-					
licensed(a) { age	1,755	1,755	1,920	1,695	1,801
Complement { Masters and officers ..	512	505	513	547	545
of Crew { Engineers	529	419	548	579	585
{ Crew	4,193	4,045	4,264	4,458	4,515

(a) Exclusive of purely day passenger accommodation.

§ 6. Tonnage of Cargo.

1. **Oversea and Interstate Cargo.**—(i) *Australia.* The table hereunder shows the aggregate tonnage of oversea cargo discharged and shipped and the tonnage of interstate cargo shipped in all ports for the years 1932-33 to 1936-37. Cargo which was stated in cubic feet has been converted to tons measurement on the basis of 40 cubic feet to the ton.

CARGO MOVEMENT.

Year.	Oversea Cargo.				Interstate Cargo.	
	Discharged.		Shipped.		Shipped.	
	Tons Weight.	Tons Meas.	Tons Weight.	Tons Meas.	Tons Weight.	Tons Meas.
1932-33 ..	2,679,800	1,217,218	5,641,926	778,579	3,819,654	1,047,054
1933-34 ..	2,606,101	1,395,291	4,260,182	738,846	4,278,159	1,201,617
1934-35 ..	2,969,914	1,722,485	5,220,757	857,976	5,244,386	1,346,422
1935-36 ..	3,531,839	1,948,508	5,214,194	893,509	5,540,938	1,502,813
1936-37 ..	3,655,623	2,024,051	5,627,746	933,416	6,501,393	1,596,869

TONNAGE OF CARGO.

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(ii) *Principal Ports.* The following table shows the tonnage of Oversea and Interstate Cargo discharged and shipped at principal ports, 1936-37:—

TONNAGE OF CARGO DISCHARGED AND SHIPPED AT PRINCIPAL PORTS, 1936-37.

Port.	Discharged.			Shipped.		
	Oversea.	Interstate.	Total.	Oversea.	Interstate.	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Sydney	1,911,202	1,127,872	3,039,074	1,396,441	855,418	2,251,859
Newcastle	159,532	1,494,937	1,654,469	347,972	2,301,941	2,649,913
Kembla	59,275	405,497	524,772	93,779	234,107	327,946
Other	..	..	..	21,269	15,259	36,528
Total, New South Wales	2,130,009	3,088,306	5,218,315	1,859,461	3,406,785	5,266,246
Melbourne	1,633,323	2,275,852	3,909,175	1,020,524	1,044,754	2,065,278
Geelong	194,435	200,687	401,122	327,484	53,120	380,604
Other	16,165	8,179	24,344	6,175	5,308	11,483
Total, Victoria	1,843,923	2,490,718	4,334,641	1,354,183	1,103,182	2,457,365
Brisbane	331,766	517,825	849,591	167,483	198,803	366,286
Cairns	6,100	40,150	46,250	139,998	118,839	258,837
Townsville	60,090	65,167	125,257	169,591	51,497	221,058
Other	19,310	72,228	91,538	236,803	99,289	336,092
Total, Queensland	417,266	695,370	1,112,636	713,875	468,398	1,182,273
Adelaide	472,767	837,273	1,310,040	394,981	379,002	773,983
Pirie	67,055	204,911	271,966	298,423	141,710	440,133
Wallaroo	26,587	2,398	28,985	89,400	15,035	104,495
Whyalla	..	..	..	266,884	1,660,155	1,927,039
Other	27,182	6,709	33,891	153,521	9,628	163,149
Total, South Australia	593,591	1,051,291	1,644,882	1,203,269	2,205,530	3,408,799
Fremantle	523,629	354,248	877,877	380,925	49,989	430,914
Bunbury	41,837	900	42,737	145,233	29,050	174,283
Geraldton	39,285	10,715	50,000	51,224	3	51,227
Other	18,675	15,270	33,945	59,391	17,059	76,450
Total, Western Australia	623,426	381,133	1,004,559	636,773	96,101	732,874
Hobart	56,498	324,446	380,944	156,231	209,594	365,825
Launceston	6,178	109,702	115,880	27,350	77,962	105,312
Devonport	507	22,108	22,615	..	341,578	341,578
Other	..	71,375	71,375	9,754	186,478	196,232
Total, Tasmania	63,183	527,631	590,814	193,335	815,612	1,008,947
Darwin (Northern Territory)	8,276	10,952	19,228	266	2,654	2,920
Total, AUSTRALIA	5,679,674	8,245,401	13,925,075	5,961,162	8,098,262	14,059,424

2. **Nationality.**—The following table shows the total oversea cargo discharged and shipped according to the nationality of the vessels carrying during the years 1932-33 to 1936-37 :—

OVERSEA CARGO DISCHARGED AND SHIPPED.—TONS.(a)

Vessels Registered at Ports in—	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
British—					
Australia	229,930	257,497	307,440	329,208	329,990
United Kingdom	5,644,962	4,796,937	5,813,352	6,181,120	6,831,581
Canada	88,733	115,125	127,379	154,914	81,313
New Zealand	317,821	357,087	323,630	398,238	390,892
Other British	221,606	403,757	392,606	534,585	451,409
Total British	6,503,052	5,930,403	6,964,407	7,508,065	8,085,185
Per cent. on Total	63.03	65.89	64.66	65.57	69.46
Foreign—					
Denmark	296,265	184,626	154,172	160,285	150,640
France	95,977	108,736	169,802	149,435	113,584
Germany	258,915	276,821	297,020	346,544	392,200
Italy	107,503	103,921	66,319	33,520	58,491
Japan	1,071,568	635,142	913,552	914,856	542,761
Netherlands (b)	313,158	280,509	308,157	228,226	215,640
Norway	883,810	814,447	1,023,612	1,207,673	1,164,105
Sweden	418,101	325,114	408,462	390,080	310,934
United States of America	226,033	246,858	240,271	300,974	261,746
Other Foreign	143,111	93,843	225,328	266,892	236,481
Total Foreign	3,814,471	3,070,017	3,806,725	3,989,985	3,555,651
Per cent. on Total	36.97	34.11	35.34	34.43	30.54
Grand Total	10,317,523	9,000,420	10,771,132	11,588,050	11,640,836

(a) Tons weight and tons measurement combined.

(b) Includes Netherlands East Indies.

NOTE.—A summary of particulars relating to Shipping and Cargo for the year 1937-38 will be found in the Appendix to this volume.

§ 7. Miscellaneous.

1. **Lighthouses.**—Transport and Communication Bulletin No. 14, published by this Bureau, contained a list of the principal lighthouses on the coast of Australia, giving details of the location, number, colour, character, period, candle-power and visibility of each light so far as particulars were available.

2. **Distances by Sea.**—A statement giving the distances by sea between the ports of the capital cities of Australia and the most important ports in other countries which trade with Australia was also included in Transport and Communication Bulletin No. 14.

3. **Shipping Freight Rates.**—The Quarterly Summary of Australian Statistics gives a list of the ruling freight rates for general merchandise both in respect of oversea and interstate shipments. The latest figures available, which give the rates current at 31st March, 1938, show that the rate for general merchandise from Australia to United Kingdom and Continent was 63s. per ton weight or measurement, while the rates for wheat (parcels) and wool (greasy) were respectively 33s. 9d. per ton weight and 1d. per lb. plus 5 per cent., less 10 per cent. The charter rates for wheat ranged between 30s. 9d. and 36s. 6d. per ton.

4. **Depth of Water at Main Ports.**—A table, compiled from information supplied by the Director of Navigation, showing the depth of water at the main ports of Australia at 1st January, 1938 was included in the Transport and Communication Bulletin No. 28, published by this Bureau.

5. **Shipping Casualties.**—Courts of Marine Inquiry are constituted by a Magistrate assisted by skilled assessors, and when necessary are held at the principal port in each State and at Launceston (Tasmania). Such courts have power to deal with the

certificates of officers who are found at fault. Particulars of shipping casualties reported on or near the coast during the year 1937 are shown in Transport and Communication Bulletin No. 28. This information also was furnished by the Director of Navigation.

6. **Commonwealth Navigation and Shipping Legislation.**—(i) *General.* An account in some detail of the Commonwealth navigation and shipping legislation was published in *Official Year Book No. 17* (pp. 1053-5).

(ii) *Recent legislation.* Under the provisions of the Navigation Act the coasting trade of the Commonwealth in passengers and cargo is reserved by section 288 to ships licensed to engage in that trade. Licences are granted to ships complying with Australian conditions respecting wages, manning crew, accommodation and so on, stipulations which have confined the trade to Australian-owned vessels.

Provision was made in the Act for permits to be granted to unlicensed British ships to carry cargo and passengers on the coast when it was shown that the licensed service was inadequate. The permit system, however, was not entirely satisfactory and in 1926 the Act was amended to allow the Governor-General, by notice in the *Gazette*, to permit unlicensed British ships of a specified size and speed to engage in the passenger trade between particular ports. Exemptions under the Act were placed on a statutory basis by the Navigation Act of 1935 which permits unlicensed British ships of not less than 10,000 tons and a sea speed of not less than 14 knots to carry passengers between any two ports in Australia not connected by rail. In every case the voyage must be made in one ship without break of journey, transshipment, or second call at any port. On arriving at the port of destination the passenger may be taken on to the first port of call of the ship, which is either the first port of embarkation, or alternatively, a port connected with it by rail.

In the Navigation Act of 1935 also the carriage of wireless equipment was extended to all ships engaged in interstate trade. A similar provision for intra-state vessels has been made by some of the States.

The Navigation (Maritime Conventions) Act of 1934 was an amendment of the Navigation Act to enable the Commonwealth to give effect to the provisions of a number of maritime conferences of recent years, of which the most important were those dealing with the safety of life at sea and load lines.

In an effort to protect the interests of British shipping in the Pacific against subsidized foreign competition the New Zealand Government recently introduced a measure prohibiting foreign vessels from embarking passengers or cargo in a New Zealand port for any destination in Australia. On 3rd December, 1936, the British Shipping Protection Bill, designed to implement the New Zealand legislation, was introduced into the Australian Senate. After the speech on the second reading, the debate was adjourned.

7. **Ports and Harbours.**—A report in two volumes on "Transport in Australia", with special reference to Ports and Harbours facilities, was submitted to the Commonwealth Government by Sir George Buchanan, and published as two Parliamentary Papers (No. 86 printed 14th March, 1927, and No. 108 printed 9th May, 1927).

B. RAILWAYS.

§ 1. General.

1. **Introduction.**—In the following pages statistics relating to State-owned lines are, in the main, dealt with separately from those under the control of the Commonwealth Government. The railways owned by the different States are referred to throughout as "State" and those owned by the Commonwealth as "Federal" railways.

2. **Improvement of Railway Statistics.**—Earlier issues of the Year Book contain a condensation of the report issued in 1909 by the Commonwealth Statistician to the Minister for Home Affairs on the subject of "The Desirability of Improved Statistics of Government Railways in Australia" (see Year Book No. 7, page 598).

Considerable improvement, both as regards the volume of information and the mode of presentation thereof in the statistical tables appearing in the reports of the several Railway Commissioners, has been made during recent years.

In an endeavour to adhere more closely to the figures used by the Railways Commissioners in relation to their financial operations and to obtain greater uniformity in the presentation of the particulars of the various systems, certain changes were made in the compilation of Railways Statistics from and including the year 1935-36. The figures relating to the last two years will not, therefore, in all cases, be entirely comparable with those of previous years, although generally the differences occasioned are relatively small.

3. **Railway Communication in Australia.**—An account of the progress of railway construction in Australia since the opening of the first line in 1854 will be found in Year Book No. 6, p. 681. Further information regarding railway communication in Australia and proposals for unification of gauge in the various systems are given in Year Book No. 22, pp. 259 to 261.

4. **Grafton-South Brisbane (Uniform Gauge) Line.**—The line from Grafton (New South Wales) to Brisbane (Queensland) which was opened for traffic on 27th September, 1930, was constructed to overcome the break of gauge between Sydney and Brisbane, and was the first step towards uniform gauge railway communication between the capitals of the mainland States. It was constructed under agreement between the Commonwealth and the States of New South Wales and Queensland, and is of 4 ft. 8½ in. gauge. The work consisted of regrading and relaying the existing New South Wales line between Grafton and Kyogle and the construction of a new line 94.82 miles in length from Kyogle (New South Wales) to South Brisbane (Queensland). Under the agreement, the Commonwealth in the first instance provided the cost of the work, of which one-fifth was deemed to have been on behalf of the Commonwealth, and four-fifths on behalf of the five mainland States of the Commonwealth collectively on a population basis. The agreement also provided that if in any financial year the earnings from the line exceed the working expenses, the excess shall be applied in paying to the Commonwealth the interest on the money provided by it on behalf of the States and the Commonwealth. The order in which such excess shall be applied is laid down in the agreement, and provides that the interest on the quotas of Victoria, South Australia and Western Australia shall be paid first, then the interest on the quotas of Queensland and New South Wales, and lastly the interest on the quota of the Commonwealth; any balance remaining after payment of interest will be returned to Queensland and New South Wales. The States of Victoria, South Australia and Western Australia did not enter into the agreement, and the quotas of these States were assumed by the Commonwealth. To 30th June, 1937, the capital cost of construction and equipment was £4,302,500, the interest charge for the year 1936-37 being £218,125. During the same period, the working of the line, which is the responsibility of the New South Wales and Queensland Railways Commissioners, resulted in a loss of £31,240 being shown on the New South Wales section and a profit of £0,831 on the Queensland section. In addition, the following amounts were paid as interest:—New South Wales, £72,179, and Queensland £27,029, the remainder, £126,618, being borne by the Commonwealth. Figures relating to the operation, etc., of the line are incorporated as far as possible with those for New South Wales and Queensland in the tables in Section 3, State Railways.

5. **Mileage Open for Traffic, all Lines.**—(i) *General.* In all the States the principle that the control, construction and maintenance of the railways should be in the hands of the Government has long been adhered to, excepting in cases presenting unusual circumstances. In various parts of Australia lines have been constructed and managed by private companies, but at the present time nearly the whole of the railway traffic is in the hands of the State or Commonwealth Governments. A large proportion of the private lines has been laid down for the purpose of opening up forest lands, mining districts, or sugar areas, and these lines are not generally used for the conveyance of passengers or the public conveyance of goods.

The subjoined table shows the route mileage of Federal, State and private lines open for general traffic (exclusive of sidings and cross-overs) in each State for each of the years 1932-33 to 1936-37. The railway mileage given for each State includes both Federal, State and private railways in that State.

RAILWAYS.—GOVERNMENT AND PRIVATE.—MILEAGE OPEN.

State or Territory.	1932-33.	1933-34.	1934-35.	1935-36	1936-37.
	Miles.	Miles.	Miles.	Miles.	Miles.
New South Wales ..	6,246.61	6,246.53	6,246.53	6,204.64	6,214.42
Victoria ..	4,745.71	4,745.71	4,745.71	4,745.71	4,745.71
Queensland ..	6,836.41	6,836.55	6,836.54	6,812.80	6,795.17
South Australia ..	3,775.81	3,775.81	3,775.90	3,775.90	3,776.29
Western Australia ..	5,008.72	5,090.87	5,089.50	5,089.33	5,088.04
Tasmania ..	780.45	780.45	770.46	770.46	782.57
Australian Capital Territory ..	4.94	4.94	4.94	4.94	4.94
Northern Territory ..	489.73	489.73	489.73	489.73	489.73
Australia ..	27,954.38	27,976.59	27,965.31	27,899.51	27,896.87

In previous issues of the Year Book particulars of mileage open were given for different periods from 1855 onwards. (See No. 15, p. 537.)

(ii) *Government and Private Lines Separately.* The next table shows for each State (a) the length of lines owned by the State Government, and by the Commonwealth Government in that State, all of which lines are open for general use by the public, and (b) the length of private lines available for general use by the public. The mileages specified in the case of Government and private lines are to the 30th June, 1937:—

RAILWAYS.—GOVERNMENT AND PRIVATE.—MILEAGE CLASSIFIED, 1936-37.

State or Territory.	Government Lines—		Private Lines available for General Traffic.	Total Open for General Traffic.
	State.	Federal.		
	Miles.	Miles.	Miles.	Miles.
New South Wales ..	6,124.19	..	90.23	6,214.42
Victoria ..	4,720.77	..	24.94	4,745.71
Queensland ..	6,566.65	..	228.52	6,795.17
South Australia ..	2,529.35	1,196.04	50.90	3,776.29
Western Australia ..	4,357.05	453.99	277.00	5,088.04
Tasmania ..	651.00	..	131.57	782.57
Australian Capital Territory ..	..	4.94	..	4.94
Northern Territory ..	..	489.73	..	489.73
Australia ..	24,949.01	2,144.70	803.16	27,896.87

6. *Comparative Railway Facilities.*—The mileage of line open to the public for general traffic (including both Government and private lines) is shown in the subjoined statement in relation to population and area respectively at the 30th June, 1937:

RAILWAYS.—GOVERNMENT AND PRIVATE.—COMPARISON OF FACILITIES, 1936-1937.

Particulars.	N.S.W.	Vic.	Q'd.	S.A.	W.A.	Tas.	Aus. Cap. Ter.	Nor. Ter.	Aust
Mileage of Railway—									
Per 1,000 of population..	2.31	2.56	6.85	6.41	11.20	3.37	0.48	89.79	4.08
Per 1,000 sq. miles of Territory ..	20.08	54.00	10.13	9.94	5.21	29.85	5.26	0.94	9.38

7. **Classification of Lines according to Gauge, 1936-37.**—The next table gives a classification according to gauge of the total mileage exclusive of sidings and crossovers of (i) Federal railways, given in the State or Territory in which situated; (ii) State railways; and (iii) Private railways open to the public for general traffic. Particulars of Government railways are up to the 30th June, 1937, and of private railways open for general traffic to the 31st December, 1937, as nearly as possible.

RAILWAYS.—GOVERNMENT AND PRIVATE.—GAUGES, 1936-37.

State or Territory in which situated.	Route mileage having a gauge of						Total
	5 ft. 3 in.	4 ft. 8½ in.	3 ft. 6 in.	3 ft. 0 in.	2 ft. 6 in.	2 ft. 0 in.	
FEDERAL RAILWAYS.							
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
South Australia	..	597.86	598.18	..	..	..	1,196.04
Western Australia	..	453.99	..	..	..	..	453.99
Australian Capital Territory ..	..	4.94	..	..	..	..	4.94
Northern Territory	..	..	489.73	..	..	..	489.73
Total	..	1,056.79	1,087.91	..	..	..	2,144.70

STATE RAILWAYS.

New South Wales	..	6,124.19	..	..	..	..	6,124.19
Victoria	4,599.00	..	..	..	121.77	..	4,720.77
Queensland	..	68.82	6,467.57	..	..	30.26	6,566.65
South Australia	1,451.24	..	1,078.11	..	..	..	2,529.35
Western Australia	..	..	4,357.05	..	..	..	4,357.05
Tasmania	..	..	639.67	..	..	11.33	651.00
Total	6,050.24	6,193.01	12,542.40	..	121.77	41.59	24,949.01

PRIVATE RAILWAYS OPEN FOR GENERAL TRAFFIC.

New South Wales	..	53.50	36.73	..	..	..	90.23
Victoria	13.94	..	..	11.00	..	..	24.94
Queensland	..	..	100.00	..	..	128.52	228.52
South Australia	..	..	50.90	..	..	..	50.90
Western Australia	..	..	277.00	..	..	..	277.00
Tasmania	..	..	125.07	..	..	6.50	131.57
Total	13.94	53.50	589.70	11.00	..	135.02	803.16

ALL RAILWAYS OPEN FOR GENERAL TRAFFIC.

New South Wales	..	6,177.69	36.73	..	..	..	6,214.42
Victoria	4,612.94	..	..	11.00	121.77	..	4,745.71
Queensland	..	68.82	6,567.57	..	..	158.78	6,795.17
South Australia	1,451.24	597.86	1,727.19	..	..	..	3,776.29
Western Australia	..	453.99	4,634.05	..	..	..	5,088.04
Tasmania	..	..	764.74	..	..	17.83	782.57
Australian Capital Territory ..	..	4.94	..	..	..	..	4.94
Northern Territory	..	..	489.73	..	..	..	489.73
GRAND TOTAL	6,064.18	7,303.30	14,220.01	11.00	121.77	176.61	27,896.8

8. **Summary of Operations, 1936 37.**—In the following table a summary is given of the working of all railways open for general traffic in Australia during the year ended 30th June, 1937 :—

RAILWAYS.—FEDERAL, STATE AND PRIVATE. SUMMARY, 1936-37.

Particulars.		Federal Railways.	State Railways.	Private Railways.(a)	Total for Australia.
Mileage open (route) 30th June, 1937	Miles	2,144.70	24,949.01	803.16	27,896.87
Capital cost (d)	£	16,081,606	320,309,759	4,819,888	341,211,253
Cost per mile	£	7.498	12.839	6.001	12.231
Gross revenue	£	442,249	42,791,812	705,015	43,939,076
Gross revenue per train mile	d.	147.31	142.11	130.51	141.96
Working Expenses (d)	£	410,813	30,875,994	434,630	31,721,446
Working Expenses per train mile	d.	136.84	102.54	80.46	102.49
Net Revenue	£	31,436	11,915,818	270,376	12,217,630
Net Revenue per train mile	d.	10.47	39.57	50.05	39.47
Train miles run	Miles	720,540	72,266,837	1,296,473	74,283,850
Passengers carried	No.	108,785	377,525,352	1,349,531	378,983,668
Tons of goods, etc., carried	Tons	126,779	32,477,751	4,002,448	36,606,978
Average number of employees	No. (c)	1,581	99,429	1,129	102,139
Average wage	£	226	235	244	235

(a) Approximate. Complete particulars not available for all items. (b) Employees at 31st December, 1937. (c) Exclusive of Construction Branch. (d) See § 1 par. 2, page 122.

9. **Track Mileage—Government Railways.**—The following table gives the track mileages of all Government railways and sidings, exclusive of Tasmania, for the years ended 30th June, 1934 to 1937, classified according to gauge, together with the percentages on the total :—

RAILWAYS, FEDERAL AND STATE.—TRACK MILEAGE.(a)

At 30th June—

Gauge.	1934.		1935.		1936.		1937.	
	Miles.	%	Miles.	%	Miles.	%	Miles.	%
5 ft. 3 in. ..	7,855.07	24.65	7,825.11	24.56	7,825.79	24.58	7,827.46	24.58
4 ft. 8½ in. ..	9,324.67	29.26	9,331.02	29.29	9,330.67	29.33	9,343.70	29.33
3 ft. 6 in. ..	14,528.97	45.58	14,543.16	45.64	14,507.74	45.57	14,515.88	45.57
2 ft. 6 in. ..	131.91	0.41	131.91	0.41	131.88	0.42	131.88	0.42
2 ft. 0 in. ..	33.00	0.10	33.00	0.10	33.00	0.10	33.00	0.10
Total ..	31,873.62	100.00	31,864.20	100.00	31,835.08	100.00	31,851.92	100.00

(a) Exclusive of Tasmania, particulars of which are not available.

§ 2. Federal Railways.

1. **General.**—On the 1st January, 1911, the Commonwealth Government took over the Northern Territory from the South Australian Government, and at the same time the railways from Darwin to Pine Creek in the Northern Territory, and from Port Augusta to Oodnadatta in South Australia came under its control. Subsequently the construction of a transcontinental line from Port Augusta in South Australia to Kalgoorlie in Western Australia was undertaken by the Commonwealth Government, while a line has been built in the Australian Capital Territory, connecting Canberra with the New

South Wales railway system at Queanbeyan. An extension of the transcontinental line from Port Augusta to Port Pirie was completed in July, 1937. The North Australia Railway has, since its acquisition by the Commonwealth, been extended twice, first to Emungalan and then to Birdum. The Central Australia Railway has also been extended from Oodnadatta to Alice Springs. In 1917 the Commonwealth Railways Act was passed by which all the Federal railways were vested in the Commonwealth Railways Commissioner.

2. **Northern Territory Railways.**—(i) *North Australia Railway (Darwin to Birdum).*—Provision was made in the Northern Territory Acceptance Act of 1910 for the construction of a line to and from South Australia. The first step was the extension of the existing line—Darwin to Pine Creek—as far as Katherine River, which was completed in 1927. After enquiry the Parliamentary Standing Committee on Public Works recommended a further extension to Daly Waters to form portion of an eventual line through Newcastle Waters to Camooweal in Queensland. The construction of the line from Katherine River to Daly Waters, a distance of 160 miles, was commenced by day labour in 1927. A section as far as Mataranka was opened for public traffic on 1st July, 1928, but owing to the curtailment of loan moneys the line was not taken beyond Birdum, 316 miles from Darwin, although construction had been commenced on the Birdum to Daly Waters section. The Mataranka to Birdum section was opened on 4th September, 1929.

(ii) *Central Australia Railway (Port Augusta to Alice Springs).*—The extension of the southern portion of the North-South line was authorized by the Railways (South Australia) Agreement Act 1926, which ratified the agreement between the Commonwealth and South Australian Governments for the construction of a 3 ft. 6 in. gauge line from Oodnadatta to Alice Springs, a distance of 293 miles. The estimated cost of the proposed extension was £1,700,000, exclusive of rolling stock. The first section 21½ miles from Oodnadatta was completed on the 29th August, 1927. The section from Oodnadatta to Rumbalara (169 miles 67 chains) was opened for public traffic on the 23rd December, 1928, and the remaining portion from Rumbalara to Alice Springs was completed and opened for public traffic on the 2nd August, 1929.

3. **Australian Capital Territory Railway (Queanbeyan to Canberra).**—This line was built by the Railway Construction Branch of the Public Works Department, New South Wales, and, when completed, was taken over by the Chief Commissioner of Railways for that State, who worked the line for the Commonwealth Government until 1st July, 1928, on which date the management was taken over by the Commonwealth Railways Commissioner. The line was opened for traffic on 25th May, 1914. It connects with the New South Wales railway system at Queanbeyan, and is 4.94 miles in length.

4. **Trans-Australian Railway (Kalgoorlie to Port Augusta).**—A preliminary survey of a railway line connecting Western Australia with the Eastern States was commenced in 1908 and completed in March, 1909. The estimated cost of construction and equipment of the line on the basis of a 4 ft. 8½ in. gauge from Port Augusta in South Australia to Kalgoorlie in the Western Australian goldfields—a distance of 1,063 miles—was £4,045,000. The construction of the line was commenced at Port Augusta in September, 1912, and operations began at the other end from Kalgoorlie in February, 1913. The line was completed on 17th October, 1917, and five days later the first through train left Port Augusta with an official party on board for Kalgoorlie. Owing to deviations from the original route the length of the line was reduced from 1,063.39 miles to 1,051.85 miles—a saving of 11.54 miles. More detailed reference to the construction of the line and a description of the country through which it passes is given in Official Year Book No. 11, pp. 662 and 1213.

On the 20th November, 1935, the Commonwealth and the State of South Australia entered into an agreement to extend the Trans-Australian line by the construction of a 4 ft. 8½ in. gauge railway from Port Augusta to Solomontown, a suburb of Port Pirie. In the State of South Australia, the work to be undertaken by the Commonwealth at a maximum cost of £25,000 inclusive of rolling stock. The State of South Australia agreed to construct a railway of 5 ft. 3 in. gauge from Red Hill to Port Pirie to meet the Commonwealth line at Solomontown.

These lines, which were opened for traffic on 26th July, 1937, have reduced the distance and travelling time between Port Augusta and Adelaide, eliminated one break of gauge, and avoided the heavy grades and sharp curves of the old route. A fast passenger train is to be introduced which will run through from Melbourne to Port Pirie, thus eliminating a further break of gauge.

5. **Lines Open, Under Construction and Surveyed.**—The following table shows the lines open for traffic under the control of the Commonwealth Government at 30th June, 1937, together with the lines under construction and those which have been surveyed only:—

RAILWAYS, FEDERAL, 30th JUNE, 1937.

Terminals.	Miles.
OPEN FOR TRAFFIC.	
Trans-Australian Railway—Port Augusta (South Australia) to Kalgoorlie (Western Australia)	1,051.85
Central Australia Railway—Port Augusta (South Australia) to Alice Springs (Central Australia)	771.41
Australian Territory Railway—Queanbeyan (New South Wales) to Canberra (Australian Capital Territory)	4.94
North Australia Railway—Darwin to Birdum (Northern Territory)	316.50
Total opened for traffic	2,144.70

UNDER CONSTRUCTION.

Trans-Australian Railway—Port Augusta to Port Pirie (South Australia) (a)	50.25
North Australia Railway—Birdum to Daly Waters (Northern Territory) (b)	43.50
Total under construction	99.75

(a) Opened for traffic on 26th July, 1937.

(b) Construction suspended in September, 1929.

SURVEYED.

Kingoonya to Boorthanna (South Australia)	176.44
Canberra to Jervis Bay (Australian Capital Territory)	140.22
Canberra (Australian Capital Territory) to Australian Capital Territory Border in the direction of Yass (New South Wales)	11.67
Daly Waters (Northern Territory) to Alice Springs (South Australia)	559.50
Port Augusta to Crystal Brook (South Australia)	69.25
Total surveyed	957.08

In addition, the following trial surveys were undertaken on behalf of the North Australia Commission, viz.:—

(1) From the proposed deep water port at Rocky Island (Gulf of Carpentaria) to Borroloola; (2) from Borroloola to near Anthony's Lagoon; (3) from Daly Waters to a point on the Queensland Border about 44 miles south of Camooweal; and (4) from a point on the Daly Waters—Queensland Border survey 45 miles south of Daly Waters and near Newcastle Waters to the border of Western Australia.

6. **Mileage open, worked, and Train miles run.**—The next table shows the length of the Federal railways open for traffic, average miles worked, and the train miles run in the years 1933 to 1937:—

RAILWAYS, FEDERAL.—MILEAGE OPEN, WORKED, AND TRAIN MILES.

Year ended 30th June—	Railway.				Total.
	Trans- Australian.	Central Australia.	Australian Capital Territory.	North Australia.	
MILES OPEN FOR TRAFFIC.					
	Miles.	Miles.	Miles.	Miles.	Miles.
1933	1,052	771	5	317	2,145
1934	1,052	771	5	317	2,145
1935	1,052	771	5	317	2,145
1936	1,052	771	5	317	2,145
1937	1,052	771	5	317	2,145

AVERAGE MILES WORKED.

	Miles.	Miles.	Miles.	Miles.	Miles.
1933	1,052	771	5	317	2,145
1934	1,052	771	5	317	2,145
1935	1,052	771	5	317	2,145
1936	1,052	771	5	317	2,145
1937	1,052	771	5	317	2,145

TRAIN MILES RUN.(a)

1933	324,173	182,414	6,850	33,809	547,246
1934	328,477	178,916	6,885	30,340	550,618
1935	335,198	158,356	6,885	35,077	536,116
1936	334,601	209,266	6,895	31,311	582,073
1937	420,804	258,759	8,865	32,112	720,540

(a) Traffic Train Mileage (exclusive of "Assistant" and "Light" mileages).

7. Cost of Construction and Equipment.—In the following table particulars are given of the cost of construction and equipment of the undermentioned railways for each of the years 1933 to 1937 :—

RAILWAYS, FEDERAL.—CAPITAL COST.

Railway.					
Year ended 30th June—	Trans- Australian.	Central Australia.	Australian Capital Territory.(a)	North Australia.	Total.
TOTAL COST OF CONSTRUCTION AND EQUIPMENT OF LINES OPEN.					
	£	£	£	£	£
1933	7,928,876	4,773,301	84,429	2,758,139	15,544,745
1934	7,987,216	4,777,278	84,493	2,758,139	15,607,126
1935	8,045,841	4,782,077	84,592	2,759,772	15,672,282
1936 (b) ..	8,251,150	4,787,882	85,325	2,775,281	15,899,638
1937	8,426,461	4,789,842	85,533	2,779,770	16,081,606

COST PER MILE OPEN.

1933	7,538	6,188	17,091	8,714	7,248
1934	7,593	6,193	17,104	8,714	7,277
1935	7,649	6,199	17,124	8,720	7,307
1936	7,884	6,207	17,272	8,769	7,413
1937	8,011	6,209	17,314	8,783	7,498

(a) Exclusive of Rolling Stock the property of New South Wales Government Railways. § 1 par. 2, p. 122.

(b) See

The sum of £2,031,390 of which £113,833 was for surveys, etc., has been provided from revenue for capital purposes to 30th June, 1937.

8. **Gross Revenue.**—(i) *Total, per average mile worked, and per train mile run.* The following table shows the total revenue from all sources, the revenue per average mile worked, and the revenue per train mile run for each of the undermentioned railways for the financial years 1933 to 1937 inclusive:—

RAILWAYS, FEDERAL.—GROSS REVENUE, TOTAL, ETC.

Year ended 30th June—		Railway.				Total.
		Trans-Australian.	Central Australia.	Australian Capital Territory.	North Australia.	
TOTAL GROSS REVENUE.						
		£	£	£	£	£
1933 ..	..	188,168	93,359	4,313	22,612	308,452
1934 ..	..	206,205	90,566	5,277	27,907	329,955
1935 ..	..	217,758	83,522	6,132	38,273	345,685
1936 ..	..	246,653	100,981	6,413	33,662	387,709
1937 ..	..	273,142	126,999	7,068	35,040	442,249
GROSS REVENUE PER AVERAGE MILE WORKED.						
		£	£	£	£	£
1933 ..	..	179	121	873	71	144
1934 ..	..	196	117	1,068	88	154
1935 ..	..	207	108	1,241	121	161
1936 ..	..	234	131	1,298	106	181
1937 ..	..	260	165	1,431	111	206
GROSS REVENUE PER TRAIN-MILE RUN.						
		d.	d.	d.	d.	d.
1933 ..	..	139.31	122.83	151.11	160.51	135.27
1934 ..	..	150.66	121.49	183.95	184.31	143.82
1935 ..	..	155.91	126.58	213.75	257.46	154.75
1936 ..	..	176.92	115.81	223.22	258.02	159.86
1937 ..	..	155.78	117.79	191.35	261.88	147.31

The comparatively large decreases in gross revenue per train mile run during 1936–37, shown in relation to the Trans-Australian and Australian Capital Territory Railways, are due mainly to the introduction of additional services on those lines.

(ii) *Classification and Percentages.* During the year 1936–37 receipts from coaching traffic and goods and live stock represented 49 per cent. and 27 per cent. respectively of the total gross revenue of the Trans-Australian line, similar percentages for the remaining lines being:—Central Australia line 13 per cent. and 84 per cent., Australian Capital Territory line 47 per cent. and 51 per cent., and North Australia line 9 per cent. and 35 per cent. coaching and goods and live stock revenue respectively.

The miscellaneous receipts for the year 1936–37 include an amount of £23,166, revenue from dining cars and refreshment services on the Trans-Australian and Central Australia Railways. A sum of £20,355 was received from this source during the previous year.

Revenues of all Federal Railways showed considerable increases as compared with the previous year.

9. **Working Expenses.**—(i) *Total.* The following table shows the total working expenses, and the percentages on the corresponding gross revenues of each railway for each year from 1933 to 1937.

Details of the annual expenditure on (a) maintenance of ways, works and buildings; (b) locomotive, carriage and wagon repairs and renewals; (c) traffic expenses; and (d) compensation, general and miscellaneous charges, are given in (iii) following.

RAILWAYS, FEDERAL.—WORKING EXPENSES, TOTAL, ETC.

Year ended 30th June—	Railway.				Total.
	Trans- Australian.	Central Australia.	Australian Capital Territory.	North Australia.	
TOTAL WORKING EXPENSES.					
	£	£	£	£	£
1933	197,363	106,875	4,720	38,843	347,801
1934	218,506	113,050	4,919	39,693	376,168
1935	197,871	133,896	5,917	41,984	379,668
1936	201,421	138,419	5,983	41,634	387,457
1937	231,659	134,767	5,674	38,713	410,813

PERCENTAGE OF WORKING EXPENSES ON REVENUE.

	%	%	%	%	%
1933	104.90	114.48	109.43	171.79	112.76
1934	105.97	124.83	93.22	142.23	114.01
1935	90.87	160.31	96.49	109.70	109.83
1936	81.66	137.07	93.29	123.68	99.94
1937	84.81	106.12	80.28	110.48	92.89

Compared with results for the previous year, the percentage of working expenses on revenue shows decreases in respect of all systems, except the Trans-Australian Railway, where an additional service was introduced, thus increasing the working expenses.

(ii) *Averages.* The next table gives the working expenses per average mile worked and per train-mile run for each railway for the years 1933 to 1937 :—

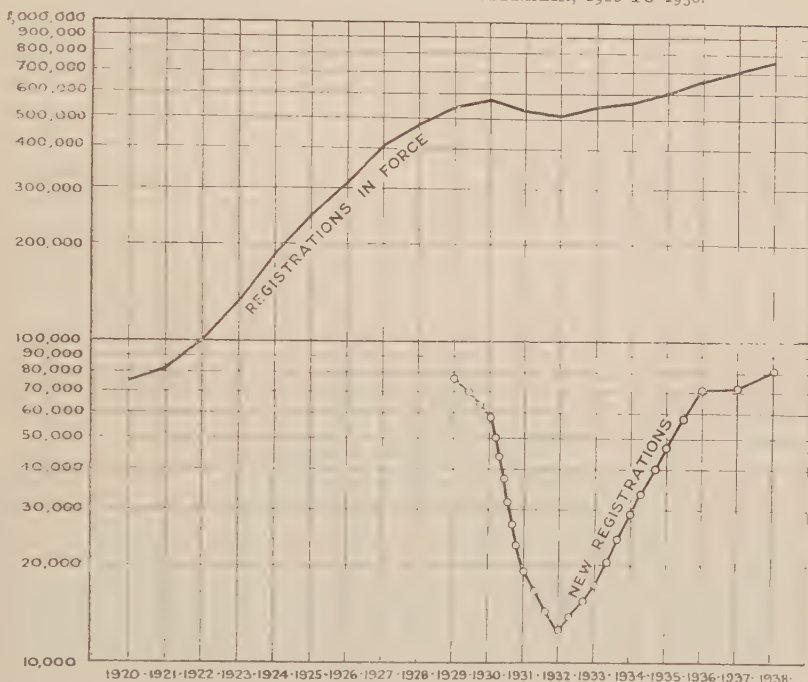
RAILWAYS, FEDERAL.—WORKING EXPENSES, AVERAGES.

Year ended 30th June—	Railway.				Total.
	Trans- Australian.	Central Australia.	Australian Capital Territory.	North Australia.	
WORKING EXPENSES PER AVERAGE MILE WORKED.					
	£	£	£	£	£
1933	188	139	956	123	162
1934	208	147	996	125	175
1935	188	173	1,198	133	177
1936	191	179	1,211	132	181
1937	220	175	1,149	122	192

WORKING EXPENSES PER TRAIN-MILE RUN.

	d.	d.	d.	d.	d.
1933	146.11	140.61	165.37	275.73	152.53
1934	159.65	151.65	171.47	262.14	163.96
1935	141.67	202.93	206.26	282.42	169.96
1936	144.47	158.75	208.26	319.13	159.76
1937	132.12	125.00	153.61	289.33	136.84

MOTOR VEHICLE REGISTRATION—AUSTRALIA, 1920 TO 1938.

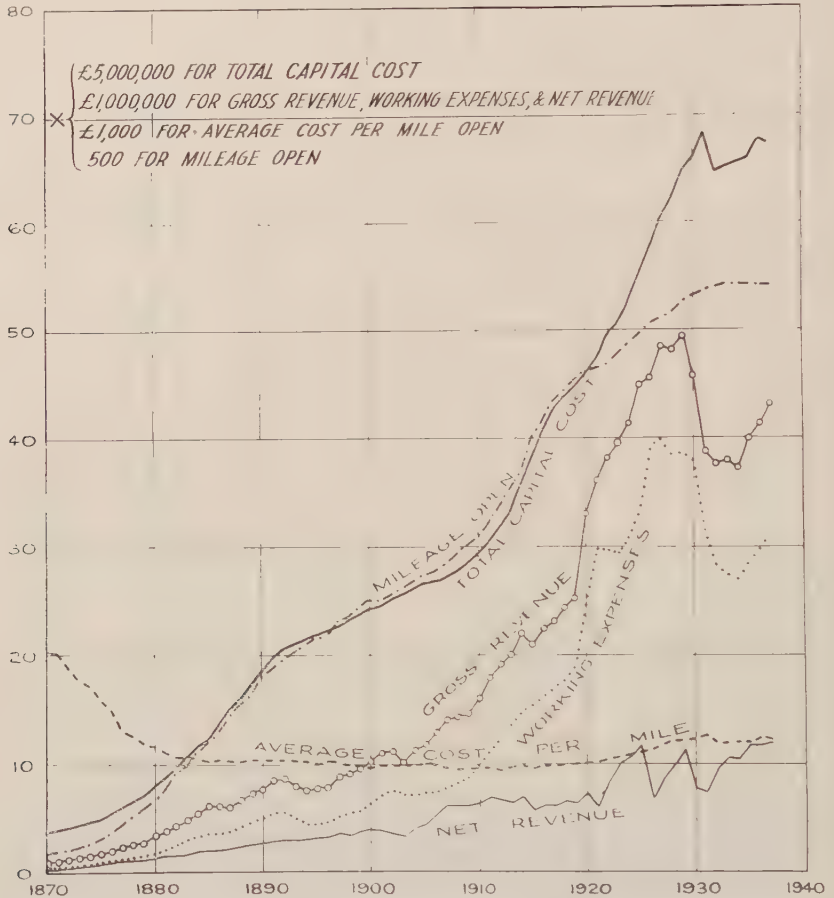


(See page 173.)

EXPLANATION.—This is a ratio graph, the vertical scale being logarithmic, and the curves rise and fall according to the rate of increase or decrease. Actual numbers are indicated by the scale at the side of the graph.

The graphs show for all motor vehicles other than motor cycles the registrations in force at 30th June each year and the number of new registrations during the year.

FINANCIAL POSITION OF THE GOVERNMENT RAILWAYS OF AUSTRALIA, 1870 TO 1937



EXPLANATION.—The base of each square represents throughout ten years. The significance of the vertical height of each square varies according to the nature of the several curves.

In the curve for the total capital cost, the vertical side of each square represents £50,000,000

In the curves for (i) gross revenue ; (ii) working expenses ; and (iii) net revenue, the vertical side of each square represents £10,000,000. For the curve of average cost per mile open, the vertical side of each square represents £10,000. The mileage open is shown by a broken line, the vertical side of each square representing 5,000 miles.



As with gross revenue, working expenses per train-mile run show decreases due mainly to the introduction of additional services.

(iii) *Classification and Percentages.* Of the total working expenses of the Federal Railways during the year 1936-37, maintenance expenses represented 34 per cent., locomotive, carriage and wagon charges 41 per cent., and traffic expenses 16 per cent. Details for each line were as follows:—Trans-Australian line 26 per cent., 46 per cent. and 16 per cent.; Central Australia line 46 per cent., 37 per cent. and 12 per cent.; Australian Capital Territory line 20 per cent., 39 per cent. and 38 per cent.; and North Australia line 42 per cent., 26 per cent. and 26 per cent. respectively.

10. *Passenger Journeys and Tonnage of Goods and Live Stock.*—(i) *General.* In the next table particulars are given of the passenger journeys and tonnage of goods and live stock carried on the Federal railways during the years 1933 to 1937:—

RAILWAYS, FEDERAL.—TRAFFIC.

Year ended 30th June—	Railway.				Total.
	Trans- Australian.	Central Australia.	Australian Capital Territory.	North Australia.	

PASSENGER JOURNEYS.					
	No.	No.	No.	No.	No.
1933	19,642	28,380	30,533	2,784	81,339
1934	19,218	28,493	37,335	3,178	88,224
1935	22,530	32,768	38,963	3,697	97,958
1936	22,843	31,669	39,023	2,967	96,502
1937	25,486	34,960	45,052	3,287	108,785

TONNAGE OF GOODS AND LIVE STOCK CARRIED.					
	Tons.	Tons.	Tons.	Tons.	Tons.
1933	19,754	71,710	10,502	3,435	105,401
1934	21,598	47,100	15,930	3,688	88,316
1935	19,073	43,668	18,008	6,459	87,208
1936	30,757	45,475	20,141	5,006	101,379
1937	42,973	57,396	22,185	4,225	126,779

(ii) *Passenger-Mileage Summary.* The appended table gives particulars of "Passenger-Mileage" on each of the Federal railways for the year 1936-37:—

RAILWAYS, FEDERAL.—"PASSENGER-MILES" SUMMARY, 1936-37.

Railway.	Passenger Train Mileage.	Number of Passenger Journeys.	Total "Passenger-Miles."	Amount Received from Passengers.	Average Number of Passengers carried per Train Mile.	Average Mileage per Passenger Journey.	Average Earnings per "Passenger-Mile."	Average Fare per Passenger Journey.	Density of Traffic per Average Mile Worked.
			,000 omitted.	£		Miles.	d.	£ s. d.	
Trans-Australian ..	304,843	25,486	23,917	100,593	75	899	1.05	3 18 11	21,787
Central Australia ..	25,104	34,960	2,333	11,949	93	67	1.23	0 6 10	3,025
Australian Capital Territory ..	7,394	45,052	222	1,730	31	5	1.87	0 0 9	45,034
North Australia ..	6,969	3,287	324	2,456	47	99	1.82	0 14 11	1,025

(iii) *Ton-Mileage Summary.* Particulars of ton-mileage are shown hereunder in respect of each of the Federal railways for the year 1936-37:—

RAILWAYS, FEDERAL.—“TON-MILEAGE” SUMMARY, 1936-37.

Railway.	Goods Train Mileage.	Total Tons Carried.	Total “Ton-Miles.”	Goods Earnings.	Average Freight-paying Load per Train.	Average Haul per ton.	Earnings per “Ton-Mile.”	Density of Traffic per Average Mile Worked.
			’000 omitted.	£	Tons.	Miles.	d.	
Trans-Australian ..	115,961	42,973	13,825	73,237	119.22	322	1.27	13,143
Central Australia ..	233,653	57,390	15,186	105,903	61.99	265	1.67	19,686
Australian Capital Territory ..	1,571	22,185	111	3,604	70.61	5	7.80	22,454
North Australia ..	25,443	4,225	620	12,226	24.67	147	4.73	1,960

11. **Rolling Stock.**—The following table shows the numbers of rolling stock in use during the years 1933 to 1937. Further details may be found on page 22 of Transport and Communication Bulletin No. 28.

RAILWAYS, FEDERAL.—ROLLING STOCK.

Railway.	At 30th June—											
	1933.			1934.			1935.			1936.		
	Locos.	Coaching Stock.	Other Stock.	Locos.	Coaching Stock.	Other Stock.	Locos.	Coaching Stock.	Other Stock.	Locos.	Coaching Stock.	Other Stock.
Trans-Australian ..	68	54	728	68	54	728	68	54	728	68	54	728
Central Australia ..	24	19	313	24	19	313	24	19	313	24	20	312
North Australia ..	13	14	314	13	14	314	13	14	314	13	14	314
Total ..	105	87	1,355	105	87	1,355	105	87	1,355	105	88	1,354

New South Wales Government Railway stock is used on the Australian Capital Territory line.

12. **Employees.**—(i) *General.* The following table shows the number of employees on the Federal railways at 30th June, in each year from 1933 to 1937 inclusive, classified according to salaried and wages staffs:—

RAILWAYS, FEDERAL.—EMPLOYEES.

Railway.	At 30th June—									
	1933.		1934.		1935.		1936.		1937.	
	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Trans-Australian	99	(a) 718	99	(a) 696	101	(a) 1,017	(c) 107	(a) 869	(c) 102	(a) 1,133
Central Australia	53	(b) 297	53	(b) 311	49	385	48	365	48	357
Australian Capital Territory ..	4	5	4	7	4	7	4	8	4	8
North Australia ..	15	88	15	95	13	109	12	101	11	104
Total ..	171	1,108	171	1,109	167	1,518	171	1,343	165	1,602

(a) Includes construction staff, 1933, 157; 1934, 91; 1935, 63; 1936, 61; 1937, 99. (b) Includes construction staff, 1933, 6; 1934, 4. (c) Includes construction staff, 1936, 10; 1937, 10.

(ii) *Average Employed throughout Year.* The average number of employees throughout the year 1936-37 was 108 salaried staff and 1,535 wages staff (of whom 11 of the former and 111 of the latter were on construction work).

13. **Accidents.**—The following table shows the number of persons killed and injured in accidents in each of the years 1933 to 1937:—

RAILWAYS, FEDERAL.—ACCIDENTS.

Railway.	Year ended 30th June—									
	1933.		1934.		1935.		1936.		1937.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Trans-Australian	..	2	1	4	1	5	..	14	..	14
Central Australia	..	4	..	8	..	5	..	7	..	14
Australian Capital Territory	..	..	..	1	..	..	..	..	..	..
North Australia	..	..	..	..	1	6	..	2	..	2
Total	..	6	1	13	2	16	..	23	..	30

Further details are available on page 25 of Transport and Communication Bulletin No. 28.

§ 3. State Railways.

1. **Administration and Control of State Railways.**—The policy of Government control of the railways has been adopted in each State, and earlier issues of the Year Book (see No. 6, p. 693) contain a description of the methods adopted by the various State Governments in the control and management of their railways.

2. **Mileage Open, 1933 to 1937.**—The following table shows the length of State railways open for traffic on the 30th June in the years 1933 to 1937:—

RAILWAYS, STATE.—MILEAGE OPEN FOR TRAFFIC.

Year ended 30th June—				N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
				Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
1933	..	..	..	6,164	4,721	6,566	2,529	4,338	645	24,963
1934	..	..	..	6,164	4,721	6,566	2,529	4,360	645	24,985
1935	..	..	..	6,164	4,721	6,566	2,529	4,359	645	24,984
1936	..	..	..	6,124	4,721	6,567	2,529	4,358	645	24,944
1937	..	..	..	6,124	4,721	6,567	2,529	4,357	651	24,949

A graph indicating the mileage open in Australia at the end of each of the years 1870 to 1937 accompanies this chapter.

The appended statement shows the actual mileage opened or closed for traffic in the year 1937, also the annual average increase or decrease in mileage opened since 1927 in each State:—

RAILWAYS, STATE.—MILEAGE OPENED OR CLOSED ANNUALLY.

Mileage.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
Mileage opened or closed during 1936-37 (a) ..	..	..	..	..	-1.29	+6.11	+4.82
Average annual mileage increase or decrease for 10 years to 30th June, 1937 (a) ..	37.41	8.66	26.51	0.16	43.90	-0.73	115.91

(a) Minus sign (-) denotes mileage closed.

In Tasmania deviations of the Main Line at the "Backbone" and Andover, and the extension of the Derwent Valley Line from Fitzgerald to Kallista occasioned an increase of 6.11 route miles. Minor adjustments in Western Australia were responsible for a decrease of 1.29 miles.

3. Length and Gauge of Railway Systems in each State.—In all the States the Government railways are grouped, for the convenience of administration and management, into several divisions or systems. A summary, showing concisely the gauge and length of the main and branch lines included in each division or system in the different States for the year ended 30th June, 1937, is given in the Transport and Communication Bulletin No. 28 issued by this Bureau.

4. Average Mileage Worked and Train-Miles Run.—The total mileage open for traffic at the end of each financial year has been given previously, but, considering the returns relating to revenue and expenditure and other matters, it is desirable to know the average number of miles actually worked during each year. The next table shows the average number of miles worked and the total number of train-miles run by the Government railways of each State during the years 1933 to 1937 inclusive:—

RAILWAYS, STATE.—MILEAGE WORKED AND TRAIN-MILES RUN.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
AVERAGE MILEAGE WORKED.							
1933 ..	6,159	4,721	6,565	2,529	4,278	645	24,897
1934 ..	6,164	4,721	6,507	2,529	4,351	645	24,977
1935 ..	6,164	4,721	6,507	2,529	4,359	645	24,985
1936 ..	6,124	4,721	6,507	2,529	4,358	645	24,944
1937 ..	6,124	4,721	6,507	2,529	4,357	651	24,949

TRAIN-MILES RUN.(a)

1933 ..	25,562,220	15,321,398	10,826,016	4,909,588	5,282,989	1,107,800	63,010,011
1934 ..	25,173,199	15,311,461	11,139,229	4,930,271	5,389,931	1,134,129	63,078,220
1935 ..	26,275,459	15,536,111	12,958,956	5,080,319	5,868,396	1,230,034	66,949,275
1936 ..	27,701,005	16,390,943	12,385,742	5,462,146	6,094,910	(b) 1,659,021	69,693,767
1937 ..	28,547,207	17,211,384	12,902,742	5,000,323	6,074,984	1,184,167	72,260,837

(a) Traffic Train-Miles (exclusive of "Assistant" and "Light" mileages). (b) Includes steam and petrol rail car mileages excluded prior to 1936.

5. Lines under Construction and Lines Authorized, 1937.—(i) *General*. The following statement gives particulars at the 30th June, 1937, of the mileage of State railways (a) under construction; and (b) authorized for construction but not commenced:—

RAILWAYS, STATE.—MILEAGE UNDER CONSTRUCTION AND AUTHORIZED, 30th JUNE, 1937.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	All States.
Mileage under construction	a153.31	(b)38.00	(c)	29.25	18.78	..	239.34
Mileage authorized but not commenced ..	219.76	39.50	1,130.00	26.25	399.23	..	1,814.74

(a) Exclusive of 127 miles on which work has been suspended. (b) Exclusive of 65.75 miles on which work has been suspended. (c) 180 miles on which work has been suspended.

(ii) *Lines under Construction*. In spite of the great extensions of State railways since the year 1875, there are still, in some of the States, immense areas of country which are as yet practically undeveloped, and in which little in the nature of permanent settlement has been accomplished. The general policy of the States is to extend the existing lines inland in the form of light railways as settlement increases, and while it is

true that lines which were not likely to be commercially successful in the immediate future have been constructed from time to time for the purpose of encouraging settlement, the general principle that the railways should be self-supporting is kept in view.

(a) *New South Wales.* In addition to that shown under (b) below, preliminary construction work has been commenced on the Sandy Hollow to Maryvale (approximately 147 miles) and Sutherland to Cronulla (6.31 miles) railways in New South Wales. Work was suspended in 1930 on the Guyra to Dorrigo (89 miles) and Casino to Bonalbo (38 miles) lines.

(b) *Victoria.* In this State 35.50 miles of 5 ft. 3 in. gauge lines have been partially constructed, from Nowingi to Millewa South, work thereon being temporarily suspended. Under the provisions of the Border Railways Act 1922 (Vic. 3194) the following lines are under construction in New South Wales territory:—Euston to Lette (30.25 miles); and Yarrawonga to Oaklands (38 miles). Work has been suspended on the former line while traffic on the latter is being conducted by the Constructing Authority pending the transfer to the Railways Commissioners. On completion, these lines, which are of 5 ft. 3 in. gauge, will be taken over and operated by the Victorian Railways Commissioners.

(c) *Queensland.* In previous issues of the Year Book details were given of the scheme of railway construction under the provisions of the North Coast Railway Act 1910 (see Year Book No. 15, p. 551). On the 30th June, 1937, no railway construction work was in progress. The following lines are partially constructed, but work thereon is temporarily suspended:—Goondoon to Kallliwa Creek (18 miles); Yaraka to Powell's Creek (27 miles); Dajarra to Moonah Creek (41 miles); Rannes to Monto (63 miles); and Winton to 37-Mile (37 miles); a total of 186 miles.

(d) *South Australia.* The South Australian Government constructed 29.25 miles of a 5 ft. 3 in. gauge line from Red Hill to Port Pirie to connect with a line of 4 ft. 8½ in. gauge from Port Pirie to Port Augusta, a distance of 56.25 miles, simultaneously constructed by the Commonwealth authorities. Both sections were opened for traffic on the 26th July, 1937. For further particulars, see § 2, par. 4, page 126.

(e) *Western Australia.* In October, 1936, authority was received for the construction of a line, 18.78 miles in length, from Cue to Big Bell. Construction work was commenced on the 22nd October, and the line was opened for ordinary traffic on the 2nd August, 1937.

(f) *Tasmania.* At 30th June, 1937, no railway construction work was in progress.

(iii) *Lines Authorized for Construction.* (a) *New South Wales.* At the 30th June 1937, the following lines had been authorized for construction but not commenced:—Gilganira to Collie (21.54 miles); Jerilderie towards Deniliquin (25.00 miles); Rand to Bull Plain (27.55 miles); Canowindra to Gregra (33.87 miles); St. Leonards to Eastwood (9.07 miles); Inverell to Ashford (32 miles); Bungendore to Captain's Flat (21.18 miles); Gwabegar to Burren Junction (36.25 miles); Eastern Suburbs to Bondi (7.75 miles); and Western Suburbs to Western Road (5.55 miles); a total distance of 219.76 miles. A permanent survey is now in hand over the proposed Bungendore to Captain's Flat line.

(b) *Victoria.* The following lines were authorized, but construction had not been commenced up to the end of June, 1937:—5 ft. 3 in. gauge: La La Siding to Big Pat's Creek (2.50 miles); Casterton to Nangeela (9 miles); and Orbst to Brodribb (6 miles). Under the Border Railways Act 1922, the following line has been authorized for construction in New South Wales Territory:—Mildura to Gol Gol (22 miles).

(c) *Queensland.* In addition to the new lines upon which work has been commenced, Parliament has authorized the construction of the following parts of the Great Western Railway—Section A, from Quilpie to Eromanga (120 miles); Section B, from Powell's Creek (224 miles); Section C, from 37-Mile to Springvale (324 miles); and Section D from Moonah Creek (216 miles). The following lines were also authorized for construction:—Texas to Silverspur (9 miles); Mount Edwards to Maryvale (28 miles); Lanefield to Rosevale (17 miles); Gatton to Mount Sylvia (11 miles); Wandoan to Taroom (42 miles); Dirranbandi extension (52 miles); Yarraman to Nanango (16 miles); Brooloo to Kenilworth (10 miles); Dobbryn to Myally Creek (50 miles); and Pearamon towards Boongee (11 miles).

(d) *South Australia.* Parliament has authorized the construction of a line on the 3 ft. 6 in. gauge from Kielpa to Mangalo Hall (26.25 miles). The survey has been completed, but the work cannot be started without a special resolution of both Houses of Parliament.

(e) *Western Australia.* The following lines were authorized for construction up to the 30th June, 1937:—Yarramony to Merredin (85 miles); Brookton to Dale River (28 miles); Boyup Brook to Cranbrook (95.23 miles); Manjimup to Mount Barker (107 miles); Leighton to Robb's Jetty (4.62 miles); Southern Cross—Southwards (27.38 miles); Yuna to Dartmoor (52 miles); a total distance of 399.23 miles. The surveys have been completed in respect of all the above lines, except the Boyup Brook to Cranbrook, the Manjimup to Mount Barker, and the Leighton to Robb's Jetty lines.

(f) *Tasmania.* There were no new railways authorized at 30th June, 1937.

6. *Cost of Construction and Equipment.*—(i) *General.* The total cost of construction and equipment of the State railways as distinct from those owned by the Commonwealth Government at the 30th June, 1937, amounted to £320,309,759, representing an average cost of £46.89 per head of population. If the cost of railways owned by the Commonwealth Government is included, the total capital cost (£330,391,395) is equivalent to an amount of £49.24 per head of the population of the Commonwealth, while the total mileage open (27,093.71 miles) per 1,000 of population is 3.07. Particulars of the capital expenditure incurred on lines open for traffic are given in the following table:—

RAILWAYS, STATE.—MILEAGE AND COST TO 30th JUNE, 1937.

State.	Length of Line Open (Route).	Total Cost of Construction and Equipment.(e)	Average Cost per Mile Open.	Cost per Head of Population.	Mileage per 1,000 of Population.
	Miles.	£	£	£	Miles.
New South Wales (a) ..	(b)6,124.19	(d)145,257,282	(d) 23,719	53.74	2.27
Victoria ..	4,720.77	77,164,316	16,346	41.58	2.54
Queensland (f) ..	(b)6,566.65	(d) 36,818,984	(d) 5,607	37.11	6.62
South Australia (a) ..	2,529.35	29,203,229	11,546	49.15	4.26
Western Australia (a) ..	4,357.05	25,470,403	5,846	56.07	9.59
Tasmania (f) ..	651.00	2,033,045	3,123	8.75	2.80
All States ..	24,949.01	(c)320,309,759	(c) 12,839	46.89	3.65

(a) Exclusive of Federal railways. (b) Includes portion of Grafton-South Brisbane uniform gauge line—New South Wales 20 miles, Queensland 68.82 miles (see par. 4, p. 122). (c) Includes Grafton-South Brisbane line, £4,362,500. (d) Exclusive of Grafton-South Brisbane line. (e) See § 1 par. 2, p. 122. (f) See below.

In Queensland a reduction of £28,000,000 in the capital cost of the railways was effected by The Railway (Capital Indebtedness) Reduction Act of 1931, it being considered inequitable to burden the Department with interest charges on capital expended on railways for the purpose of developing the State. In Tasmania also the capital indebtedness was reduced by £4,738,000 on the 1st July, 1936. The figures relating to costs for these States are fictitious, and comparisons are not possible with other States.

Excluding Queensland and Tasmania, the lowest average cost (£5.846) per mile open is in Western Australia, and the highest (£23,719) in New South Wales. There were few costly engineering difficulties in Western Australia, and the fact that contractors were permitted to carry traffic during the term of their contracts considerably reduced expenditure, particularly in respect of all gold-field contracts.

In the table above, the figures relating to cost of construction and equipment do not include particulars of charges for works in course of construction, surveys, discounts

and flotation charges on loans allocated to the railways, etc. This will explain the differences between the amounts shown therein for the various States and those shown in the several Railway Reports.

(ii) *Capital Cost, All Lines.* (a) *Total.* The increase in the total capital cost of construction and equipment of Government railways for each year from 1933 to 1937 is shown in the following table :—

RAILWAYS, STATE.—CAPITAL COST.

Year ended 30th June—	N.S.W. £	Victoria. £	Q'land. £ (c)	S. Aust. £	W. Aust. £	Tasmania. £ (c)	All States. £
TOTAL COST OF CONSTRUCTION AND EQUIPMENT OF LINES OPEN.							
1933 ..	138,921,968a	74,706,736	34,098,724a	27,167,930	24,159,782	6,560,434	6309,986,574
1934 ..	139,058,321a	75,225,403	34,380,657a	27,176,158	24,701,212	6,561,937	6311,486,688
1935 ..	139,851,012a	75,154,243	35,010,807a	27,295,054	24,946,843	6,587,891	6313,510,841
1936(d) ..	143,813,072a	79,534,378	39,294,700a	29,006,465	25,297,832	6,672,329	6322,041,276
1937 ..	145,257,282a	77,164,316	36,818,984a	29,203,229	25,470,403	(c)2,033,045	6320,309,759

COST PER MILE OPEN.

1933 ..	(a) 20,915	15,833	(a) 5 193	10,743	5,569	10,173	(b) 12,418
1934 ..	(a) 22,560	15,935	(a) 5,237	10,745	5,666	10,175	(b) 12,467
1935 ..	(a) 22,689	15,983	(a) 5,332	10,791	5,724	10,216	(b) 12,548
1936 ..	(a) 23,488	16,212	(a) 5,523	11,492	5,804	10,346	(b) 12,910
1937 ..	(a) 23,719	16,346	(a) 5,607	11,546	5,846	3,123	(b) 12,839

(a) Exclusive of Grafton-South Brisbane line.

(b) Includes Grafton-South Brisbane line.

(c) The capital indebtedness was reduced in Queensland by £28,000,000 in 1931-32, and in Tasmania by £4,378,000 from 1st July, 1936.

(d) See § 1 par. 2, p. 122.

(b) *From Consolidated Revenue.* The following table shows the amounts provided from Consolidated Revenue for construction and equipment to 30th June, 1937 :—

RAILWAYS, STATE.—EXPENDITURE FROM CONSOLIDATED REVENUE FOR CONSTRUCTION AND EQUIPMENT TO 30th JUNE, 1937.

To 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
	£	£	£	£	£	£	£
1937 ..	666,864	6,142,641	..	..	640,020	16,935	7,466,460

(iii) *Loan Expenditure.* The subjoined table shows the total net loan expenditure on Government railways in each State for the years 1933 to 1937 :—

RAILWAYS, STATE.—NET LOAN EXPENDITURE.

Year ended 30th June—	N.S.W.	Victoria.(a)	Q'land.	S. Aust.	W. Aust. (b)	Tas.	All States.
	£	£	£	£	£	£	£
1933 ..	214,885	..	Cr. 28,829	Cr. 101,622	180,495	Cr. 6,682	258,247
1934 ..	122,203	1,044	341,917	Cr. 79,856	316,081	Cr. 644	700,745
1935 ..	1,237,533	..	785,103	40,043	295,076	39,426	2,397,181
1936 ..	2,201,837	280,900	692,830	420,233	116,240	47,859	3,759,899
1937 ..	1,864,088	361,893	505,216	160,011	175,412	81,856	3,148,476

(a) Gross expenditure.
programmes.

(b) Includes expenditure provided in unemployment relief work

The following statement shows the total loan expenditure on railways to the 30th June, 1937 :—

RAILWAYS, STATE.—TOTAL LOAN EXPENDITURE TO 30th JUNE, 1937.

State.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust. (d)	Tasmania.(c)	All States.
	£	£	£	£	£	£	£
Expenditure	61,47,163,940	47,5,141,970	62,977,200	34,385,184	24,942,634	7,191,046	352,801,974

(a) Gross expenditure. (b) Excludes £1,417,928 expenditure on Grafton-South Brisbane Railway not charged to Loan Account. (c) Includes losses funded.

7. Gross Revenue.—(i) *General.* The total revenue from all sources, the revenue per average mile worked, and the revenue per train-mile run during each financial year from 1933 to 1937 inclusive were as follows :—

RAILWAYS, STATE.—GROSS REVENUE.

Year ended 30th June—	N.S.W.(a)	Victoria.(b)	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
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TOTAL GROSS REVENUE.

	£	£	£	£	£	£	£
1933	16,205,320	9,446,121	5,992,394	2,734,083	2,932,140	381,483	37,691,541
1934	15,690,186	9,175,111	6,230,188	2,559,939	2,919,315	390,903	36,965,642
1935	16,802,699	9,421,092	7,167,073	2,638,371	3,377,839	400,764	39,766,855
1936	17,753,581	9,689,925	6,607,361	2,878,068	3,446,161	448,614	40,913,710
1937	18,616,496	10,135,291	7,097,561	3,007,761	3,462,037	478,666	42,791,812

GROSS REVENUE PER AVERAGE MILE WORKED.

	£	£	£	£	£	£	£
1933	2,631	2,001	913	1,081	685	592	1,514
1934	2,546	1,943	949	1,012	671	606	1,480
1935	2,726	1,996	1,092	1,051	760	620	1,591
1936	2,869	2,053	1,020	1,138	791	696	1,640
1937	3,040	2,147	1,080	1,189	795	735	1,715

GROSS REVENUE PER TRAIN-MILE RUN.

	d.	d.	d.	d.	d.	d.	d.
1933	152.15	147.97	132.84	133.65	133.20	82.65	143.56
1934	149.59	143.82	134.23	124.62	129.99	82.72	140.65
1935	153.48	145.54	132.73	125.59	135.44	78.00	142.53
1936	153.82	141.88	129.78	126.46	135.70	(c) 64.90	140.89
1937	156.51	141.33	131.30	128.76	136.77	61.63	142.11

(a) Includes £800,000 per annum contribution from consolidated revenue towards losses on working of country development lines. (b) Includes contributions from consolidated revenue in respect of losses on non-paying lines, 1932-33, £124,288; 1933-34, £134,424; 1934-35, £140,614; 1935-36, £163,859; and 1936-37, £230,574 (includes £19,113 guarantees in respect of losses). (c) See Note (b), par. 4, p. 138.

The amounts of revenue earned per average mile worked and per train-mile run during 1936-37 in respect of (a) passenger and (b) goods and live stock traffic, separately, are given later.

(ii) *Coaching, Goods and Miscellaneous Receipts.* (a) *Totals.* The gross revenue is composed of (a) receipts from coaching traffic, including the carriage of mails, horses, parcels, etc., by passenger trains; (b) receipts from the carriage of goods and live stock; and (c) rents and miscellaneous items. The subjoined table shows the gross revenue from 1933 to 1937, classified according to the three chief sources of receipts. The total of the three items specified has already been given in the preceding paragraph.

RAILWAYS, STATE.—COACHING, GOODS, ETC., RECEIPTS.

Year ended 30th June—	N.S.W. £	Victoria. £	Q'land. £	S. Aust. £	W. Aust. £	Tas. £	All States. £
COACHING TRAFFIC RECEIPTS.							
1933 ..	5,693,953	3,008,871	1,708,247	655,700	662,444	126,273	12,875,587
1934 ..	5,555,200	3,004,003	1,872,598	640,784	688,480	128,079	12,795,094
1935 ..	5,867,820	4,087,945	1,946,526	653,610	731,449	132,566	13,419,916
1936 ..	6,186,662	4,120,403	1,974,370	680,480	741,024	141,270	13,800,217
1937 ..	6,394,612	4,231,012	1,934,220	737,021	741,964	141,247	14,180,686

GOODS AND LIVE STOCK TRAFFIC RECEIPTS.

1933 ..	8,169,056	4,773,699	4,006,279	1,924,982	2,110,065	240,978	21,225,059
1934 ..	7,802,130	4,572,038	4,146,808	1,762,800	2,059,813	248,201	20,591,949
1935 ..	8,582,012	4,555,722	4,987,309	1,853,188	2,405,046	255,428	22,639,305
1936 ..	9,154,921	4,768,127	4,481,887	2,027,287	2,526,619	294,144	23,252,985
1937 ..	9,660,767	5,028,806	4,902,697	2,098,591	2,541,170	323,892	24,555,923

MISCELLANEOUS RECEIPTS.

	(a)	(b)					
1933 ..	2,342,311	703,551	217,868	153,302	159,631	14,232	3,590,895
1934 ..	2,332,766	698,410	210,782	150,256	171,022	14,563	3,577,799
1935 ..	2,352,267	774,25	233,238	151,592	175,344	11,770	3,701,636
1936 ..	2,411,998	792,305	241,095	164,422	177,618	13,200	3,800,638
1937 ..	2,561,117	874,873	254,635	172,149	178,903	13,526	4,055,203

(a) See note (a) to Gross Revenue table on previous page.

(b) See note (b) to Gross Revenue table on previous page.

(b) *Percentages.* The following table shows for the two years 1935-36 and 1936-37 the percentage which each class of receipts bears to the total gross revenue:—

RAILWAYS, STATE.—PERCENTAGES OF RECEIPTS.

State.	1935-36.			1936-37.		
	Coaching.	Goods and Live Stock.	Miscellaneous.	Coaching.	Goods and Live Stock.	Miscellaneous.
	%	%	%	%	%	%
New South Wales ..	34.85	51.57	13.58	34.35	51.89	13.76
Victoria ..	42.62	49.21	8.17	41.75	49.62	8.63
Queensland ..	29.48	66.92	3.60	27.28	69.13	3.59
South Australia ..	23.85	70.44	5.71	24.51	69.77	5.72
Western Australia ..	21.53	73.32	5.15	21.43	73.40	5.17
Tasmania ..	31.49	65.57	2.94	29.51	67.66	2.83
All States ..	33.88	56.83	9.29	33.14	57.38	9.48

(c) *Averages for Passenger Earnings.* The subjoined table shows the passenger earnings per average mile of line worked and per passenger-train-mile in each State for the year ended the 30th June, 1937. Further particulars of passenger-mileage will be found in sub-paragraph 14 (i) hereinafter.

RAILWAYS, STATE.—PASSENGER EARNINGS, AVERAGES, 1936-37.

State.	Number of Passenger- Train-Miles.	Number of Passenger Journeys.	Passenger Earnings.			
			Gross.	Per Average Mile Worked.	Per Passenger- Train- Mile.	Per Passenger Journey.
	No.	No.	£	£	d.	d.
New South Wales ..	17,836,682	177,837,265	5,622,929	918	75.66	7.59
Victoria ..	11,886,400	141,343,253	3,806,858	806	76.86	6.46
Queensland (a) ..	5,503,698	25,444,438	1,446,773	223	63.09	13.65
South Australia ..	3,504,049	17,776,629	592,244	234	40.56	8.00
Western Australia ..	(b) 2,397,714	12,709,583	558,770	128	55.93	10.55
Tasmania ..	(b)(c) 949,394	2,331,516	120,676	185	30.51	12.42
All States ..	42,077,937	377,442,684	12,148,250	488	69.29	7.72

(a) Exclusive of Queensland portion of Grafton-South Brisbane (uniform gauge) line. (b) Estimated.
(c) Includes Rail Motor Miles, previously excluded.

(d) *Averages for Goods and Live Stock Traffic.* The gross receipts from goods and live stock traffic per average mile worked, per goods-train-mile, and per ton carried, for the year ended the 30th June, 1937, are given below. Particulars of ton-mileage will be found in sub-paragraph 14 (ii) hereinafter.

RAILWAYS, STATE.—GOODS AND LIVE STOCK TRAFFIC RECEIPTS, AVERAGES, 1936-37.

State.	Number of Goods-Train- Miles.	Goods and Live Stock Tonnage.	Goods and Live Stock Traffic Receipts.			
			Gross.	Per Average Mile Worked.	Per Goods-Train- Mile.	Per Ton Carried.
	No.	Tons.	£	£	d.	d.
New South Wales ..	10,710,525	14,336,443	9,660,767	1,577	216.48	161.73
Victoria ..	5,324,984	6,812,962	5,028,806	1,065	226.65	177.15
Queensland (b) ..	7,342,924	4,879,532	4,824,403	742	157.68	237.29
South Australia ..	2,102,304	2,382,779	2,098,591	830	239.58	211.38
Western Australia ..	(c) 3,677,270	2,708,448	2,541,170	583	105.85	217.04
Tasmania ..	(c) 914,773	823,792	323,892	498	84.98	94.36
All States ..	30,072,780	32,033,956	24,477,629	984	195.35	183.39

(a) Exclusive of 348,442 tons of coal on which way leave charges only were collected. (b) Exclusive of Queensland portion of Grafton-South Brisbane (uniform gauge) line. (c) Estimated.

8. *Working Expenses.*—(i) *General.* In order to make an adequate comparison of the working expenses, allowance should be made for the variation of gauges and of physical and traffic conditions, not only on the railways of the different States, but also on different portions of the same systems. When traffic is light, the percentage of working expenses is naturally greater than when traffic is heavy; and this is especially true in Australia, where ton-mile rates are in many cases based on a tapering principle—i.e., a lower rate per ton-mile is charged upon merchandise from remote interior districts—and where on many of the lines there is but little back loading.

The following table shows the total annual expenditure and the percentage thereof on gross revenue in each State for the years 1933 to 1937 :—

RAILWAYS, STATE.—WORKING EXPENSES.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
TOTAL WORKING EXPENSES.							
	£	£	£	£	£	£	£
1933	11,966,548	6,366,838	4,323,655	1,978,545	2,111,588	373,762	27,121,036
1934	11,203,520	6,241,505	4,494,314	2,028,772	2,186,506	385,383	26,540,000
1935	11,565,658	6,505,859	5,086,921	2,241,411	2,382,744	471,944	28,254,537
1936 (a) ..	11,848,070	6,856,497	5,212,926	2,413,814	2,488,117	560,990	29,380,414
1937	12,355,322	7,258,830	5,465,112	2,556,553	2,620,093	620,084	30,875,994

PERCENTAGE OF WORKING EXPENSES ON GROSS REVENUE.

	%	%	%	%	%	%	%
1933	73.84	67.40	72.15	72.37	72.02	97.97	71.96
1934	71.40	68.03	72.14	79.25	74.90	98.59	71.80
1935	68.83	69.06	70.98	84.31	71.95	118.06	71.06
1936	66.74	70.76	77.84	83.87	72.20	125.03	71.81
1937	66.37	71.62	77.07	85.00	75.68	129.54	72.15

(a) See § 1 par. 2, page 122.

In the graphs accompanying this chapter the gross and net revenue and working expenses are shown from 1870 to 1937.

(ii) *Averages.* The next table shows the working expenses per average mile worked and per train-mile run in each State for the years 1933 to 1937 :—

RAILWAYS, STATE.—WORKING EXPENSES, AVERAGES.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
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WORKING EXPENSES PER AVERAGE MILE WORKED.

	£	£	£	£	£	£	£
1933	1,943	1,349	659	782	494	580	1,089
1934	1,815	1,322	684	802	503	598	1,063
1935	1,870	1,378	775	886	547	732	1,130
1936	1,935	1,452	794	954	571	870	1,178
1937	2,017	1,538	832	1,011	601	953	1,238

WORKING EXPENSES PER TRAIN-MILE RUN.

	d.	d.	d.	d.	d.	d.	d.
1933	112.35	99.73	95.85	96.72	95.93	80.97	103.30
1934	106.81	97.83	96.83	98.76	97.36	81.55	100.98
1935	105.64	100.50	94.21	105.89	97.44	92.08	101.29
1936	102.65	100.39	101.01	106.06	97.97	(a) 81.15	101.17
1937	103.87	101.22	101.18	109.44	103.51	79.83	102.54

(a) See note (b) par. 4 page 138.

(iii) *Distribution.* The subjoined table shows the distribution of working expenses under four chief heads of expenditure for the years 1933 to 1937 :—

RAILWAYS, STATE.—DISTRIBUTION OF WORKING EXPENSES.

Year ended 30th June—	N.S.W. £	Victoria. £	Q'land. £	S. Aust. £	W. Aust. £	Tas. £	All States. £
MAINTENANCE OF WAY AND WORKS.							
1933	2,460,825	1,464,041	1,156,044	327,887	493,968	94,756	5,997,521
1934	2,654,375	1,564,771	1,161,660	367,776	552,007	96,111	6,437,669
1935	2,432,517	1,570,137	1,291,450	394,152	553,090	116,000	6,357,346
1936	2,161,368	1,516,786	1,344,313	444,739	568,671	122,111	6,157,988
1937	2,319,717	1,626,953	1,450,944	471,343	609,808	130,469	6,609,234

ROLLING STOCK.

1933	4,901,900	2,231,648	1,764,765	955,695	980,993	167,005	11,072,609
1934	4,193,295	2,156,706	1,851,705	951,529	956,702	170,451	10,286,388
1935	4,573,455	2,181,626	2,180,556	1,096,904	1,088,138	182,647	11,303,326
1936	4,842,086	2,333,626	2,205,283	1,140,710	1,140,035	214,043	11,885,683
1937	4,981,786	2,492,241	2,295,304	1,205,934	1,180,860	246,310	12,401,535

TRANSPORTATION AND TRAFFIC.

1933	2,771,583	1,628,237	1,136,739	450,886	562,000	87,154	6,636,599
1934	2,612,947	1,647,482	1,210,915	457,182	577,981	90,230	6,596,737
1935	2,726,197	1,713,789	1,320,239	484,831	620,975	98,581	6,964,612
1936	2,925,003	1,797,900	1,340,804	530,747	648,122	112,380	7,345,258
1937	3,005,729	1,874,436	1,393,475	575,962	693,250	127,927	7,670,779

OTHER CHARGES.

1933	1,742,340	1,042,012	266,107	244,074	94,807	24,247	3,414,307
1934	1,742,003	873,340	300,095	252,285	98,016	22,271	3,388,309
1935	1,833,489	1,040,307	294,676	265,524	120,541	(a) 74,716	3,629,253
1936	1,918,623	1,208,089	313,726	288,468	131,169	(a) 112,450	3,972,525
1937	2,048,090	1,265,200	325,389	304,214	136,175	(a) 115,378	4,194,449

(a) Includes £54,000, 1935, and £94,000, 1936 and 1937, to replacement and depreciation fund.

o. *Salaries and Wages.*—The following table shows the total amount paid in salaries and wages in each State during the years 1933 to 1937 :—

RAILWAYS, STATE.—SALARIES AND WAGES PAID.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
TOTAL SALARIES AND WAGES PAID.							
1933	£ 8,462,006	£ 4,417,160	£ 3,244,342	£ 1,376,676	£ 1,675,504	£ 249,856	£ 19,426,534
1934	8,154,378	4,533,502	3,309,071	1,418,788	1,902,457	259,288	19,065,144
1935	8,782,701	4,698,837	3,805,286	1,492,693	2,050,615	267,853	21,117,985
1936	9,773,667	4,990,163	3,925,060	1,654,653	2,012,361	334,832	22,692,736
1937	9,620,478	5,299,039	4,064,587	1,827,516	2,119,625	399,676	23,336,921

10. *Net Revenue.*—(i) *Net Revenue and Percentage on Capital Cost.* The following table shows the net sums available to meet interest charges, also the percentage of such sums upon the capital cost of construction and equipment of lines open for traffic in each State for the years 1933 to 1937 :—

RAILWAYS, STATE.—NET REVENUE AND PERCENTAGE THEREOF ON CAPITAL COST OF LINES OPEN.

Year ended 30th June—			N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
NET REVENUE.									
			£	£	£	£	£	£	£
1933	..	..	4,238,672	3,079,283	1,668,739	755,538	820,552	7,721	10,570,505
1934	..	..	4,486,666	2,933,606	1,735,874	531,167	732,809	5,520	10,425,042
1935	..	..	5,237,041	2,915,233	2,080,152	416,979	929,095	— 72,180	11,506,320
1936	..	..	5,905,511	2,833,428	1,484,435	464,254	958,044	— 112,376	11,533,296
1937	..	..	6,261,174	2,876,461	1,626,449	451,208	841,944	— 141,418	11,915,818

PERCENTAGE OF NET REVENUE ON CAPITAL COST.(a)

			%	%	%	%	%	%	%
1933	..	..	3.05	4.12	4.81	2.78	3.40	0.12	3.41
1934	..	..	3.23	3.90	4.99	1.95	2.97	0.08	3.35
1935	..	..	3.74	3.86	5.94	1.53	3.72	— 1.10	3.67
1936	..	..	4.11	3.70	4.09	1.60	3.79	— 1.68	3.58
1937	..	..	4.31	3.73	4.42	1.55	3.31	— 6.96	3.72

(a) The cost of the Grafton-South Brisbane line is excluded from New South Wales and Queensland, but is included with "All States."
(b) See par. 6, page 140.

(ii) *Net Revenue, Averages.* Tables showing the gross earnings and the working expenses per average mile worked and per train-mile run have been given previously. The net earnings, *i.e.*, the excess of gross earnings over working expenses, per average mile worked and per train-mile run are shown in the following table :—

RAILWAYS, STATE.—NET REVENUE, AVERAGES.

Year ended 30th June—			N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
NET REVENUE PER AVERAGE MILE WORKED.									
			£	£	£	£	£	£	£
1933	..	..	688	652	254	299	192	12	425
1934	..	..	728	621	265	209	168	8	417
1935	..	..	850	618	317	165	213	— 112	461
1936	..	..	964	601	226	184	220	— 174	462
1937	..	..	1,023	609	248	178	193	— 218	477

NET REVENUE PER TRAIN-MILE RUN.

			d.	d.	d.	d.	d.	d.	d.
1933	..	..	39.79	48.24	30.99	30.93	37.28	1.67	40.26
1934	..	..	42.78	45.99	37.40	25.86	32.63	1.17	39.67
1935	..	..	47.84	45.04	38.52	19.70	38.00	— 14.08	41.25
1936	..	..	51.17	41.49	28.77	20.40	37.73	— 16.25	39.72
1937	..	..	52.64	40.11	30.12	19.32	33.26	— 18.21	39.57

(a) See note (b) par. 4, page 138.

11. **Interest.**—The amount of interest payable on expenditure from loans on the construction and equipment of the railways in each State during the five years ended 30th June, 1937, was as follows :—

RAILWAYS, STATE.—INTEREST ON RAILWAY LOAN EXPENDITURE.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
AMOUNT OF INTEREST PAYABLE.							
	£	£	£	£	£	£	£
1933	26,352,581	3,221,710	21,595,522	1,137,193	996,233	263,861	213,673,133
1934	25,971,412	3,181,736	21,565,343	1,088,627	1,008,453	246,762	213,165,484
1935	25,677,540	3,056,766	21,576,693	1,055,954	1,028,569	247,727	212,746,007
1936(b) ..	25,700,000	3,032,530	21,591,788	1,061,393	1,015,521	247,732	212,775,582
1937	25,444,125	3,005,341	21,612,564	1,060,616	1,008,554	88,372	212,346,190

(a) Including interest charges on the Grafton-South Brisbane line, which for the year 1936-37 amounted to £225,826 and was contributed by New South Wales £72,179; Queensland, £27,029; and the Commonwealth, £126,618. See § 1 par. 4, p. 122. (b) See § 1 par. 2, p. 122.

The interest payable on the cost of construction and equipment, the expenditure from Consolidated Revenue (£7,466,460) for that purpose being deducted, was at the rate of 3.95 per cent. in 1936-37.

Exchange on interest payments abroad and loan management and flotation expenses are not included in the above table. These items are not charged against the railways in Queensland, Western Australia and Tasmania and the figures for these States are not available. In the remaining States the amounts apportioned since 1932-33 were as follows :—

RAILWAYS, STATE.—EXCHANGE ON OVERSEA INTEREST PAYMENTS, ETC.

Year ended 30th June—				New South Wales.	Victoria.	South Australia.
				£	£	£
1933	..	..	..	1,191,937	402,705	180,826
1934	..	..	..	1,103,381	354,335	157,001
1935	..	..	..	843,012	300,302	130,649
1936	..	..	..	903,773	310,530	121,734
1937	..	..	..	788,652	299,632	120,340

12. **Profit or Loss.**—The following table shows the actual profit or loss after deducting working expenses and interest and all other charges, excepting exchange, etc. payments, from the gross revenue, and the percentage of such profit or loss on the total capital cost of construction and equipment for the last five years :—

RAILWAYS, STATE.—PROFIT OR LOSS.

Year ended 30th June—	N.S.W.	Victoria.	Q'land. (c)	S. Aust.	W. Aust.	Tasmania. (c)	All States.
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PROFIT OR LOSS AFTER PAYMENT OF WORKING EXPENSES, INTEREST, AND OTHER CHARGES.

	£	£	£	£	£	£	£
1933	a-2,113,909	- 142,427	+ 73,217a	- 381,655	- 175,681	- 256,140	a-3,102,628
1934	a-1,484,746	- 248,130	+ 170,531a	- 557,460	- 275,644	- 241,242	a-2,739,842
1935	a- 440,499	- 141,533	+ 503,459a	- 518,975	- 99,474	- 265,907	a-1,065,687
1936	a+ 205,511	- 199,102	- 107,353a	- 597,139	- 57,477	- 360,108	a-1,242,286
1937	a+ 817,049	- 128,880	+ 13,885a	- 609,408	- 166,610	- 229,790	a- 430,372

PERCENTAGE OF PROFIT OR LOSS ON CAPITAL COST OF CONSTRUCTION AND EQUIPMENT.(b)

	%	%	%	%	%	%	%
1933	-1.52	-0.19	+0.21	-1.40	-0.73	-3.90	-1.00
1934	-1.07	-0.33	+0.53	-2.05	-1.12	-3.68	-0.88
1935	-0.31	-0.19	+1.44	-1.90	-0.40	-4.04	-0.34
1936	+0.14	-0.26	-0.30	-2.05	-0.23	-5.40	-0.38
1937	+0.56	-0.17	+0.04	-2.09	-0.65	-11.30	-0.13

(a) See Note (a) par. 11 above.
par. 6, p. 140.

(b) See Note (a) par. 10 (i) on previous page.

(c) See

13. *Traffic.*—(i) *General.* Reference has already been made to the difference in the traffic conditions on many of the lines. These conditions differ not only in the several States, but also on different lines in the same States, and apply to both passenger and goods traffic. By far the greater part of the population of Australia is confined to a fringe of country near the coast, more especially in the eastern and southern districts. A large proportion of the railway traffic between the chief centres of population is therefore carried over lines in the neighbourhood of the coast, and is thus, in some cases, open to seaborne competition, and also, particularly in the case of passenger traffic, to competition by air.

The following table gives particulars for the years 1933 to 1937 :—

RAILWAYS, STATE.—TRAFFIC.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
NUMBER OF PASSENGER JOURNEYS.							
1933 ..	132,867,221	130,190,013	22,216,409	16,074,221	11,732,291	1,678,483	314,758,638
1934 ..	142,520,429	131,367,215	22,877,900	16,325,004	12,103,104	1,789,329	326,982,981
1935 ..	160,211,508	139,689,012	24,328,300	16,660,213	12,876,378	2,133,541	355,808,952
1936 ..	171,142,729	139,539,089	25,243,901	17,430,674	12,421,527	2,321,823	368,099,743
1937 ..	177,837,265	141,343,253	25,527,106	17,776,629	12,709,583	2,331,516	377,525,352

PER 100 OF MEAN POPULATION.

1933 ..	5,128	7,173	2,361	2,774	2,685	736	4,775
1934 ..	5,454	7,198	2,407	2,803	2,748	781	4,924
1935 ..	6,060	7,607	2,532	2,828	2,906	931	5,310
1936 ..	6,419	7,571	2,597	2,948	2,774	1,008	5,453
1937 ..	6,609	7,630	2,594	2,995	2,813	1,005	5,548

PER AVERAGE MILE OF LINE WORKED.

1933 ..	21,574	27,577	3,384	6,355	2,742	2,603	12,643
1934 ..	23,122	27,826	3,484	6,454	2,782	2,775	13,092
1935 ..	25,992	29,589	3,705	6,587	2,954	3,308	14,245
1936 ..	27,945	29,559	3,844	6,891	2,850	3,600	14,757
1937 ..	29,038	29,941	3,887	7,028	2,917	3,581	15,132

TONNAGE OF GOODS AND LIVE STOCK CARRIED.

1933 ..	11,147,866	6,241,346	3,685,608	2,387,817	2,840,977	510,585	26,816,299
1934 ..	11,304,235	5,858,377	4,244,382	2,141,646	2,952,247	500,611	26,791,488
1935 ..	13,018,620	6,009,961	4,879,019	2,332,581	2,903,481	678,227	29,821,889
1936 ..	13,839,012	6,424,094	4,663,567	2,404,711	2,886,648	769,841	31,047,873
1937 ..	14,684,885	6,812,962	4,974,885	2,382,779	2,798,448	823,792	32,477,751

PER 100 OF MEAN POPULATION.

1933 ..	430	344	392	412	650	224	407
1934 ..	435	321	443	368	602	245	403
1935 ..	492	327	508	396	655	296	445
1936 ..	519	349	480	417	645	334	460
1937 ..	546	368	506	401	619	355	477

RAILWAYS, STATE.—TRAFFIC—*continued.*

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
PER AVERAGE MILE OF LINE WORKED.							
1933 ..	1,810	1,323	561	944	664	792	1,077
1934 ..	1,844	1,211	642	847	610	869	1,073
1935 ..	2,112	1,273	743	922	666	1,052	1,194
1936 ..	2,260	1,361	710	974	662	1,194	1,245
1937 ..	2,398	1,443	758	942	642	1,265	1,302

(ii) *Metropolitan and Country Passenger Traffic and Revenue.* A further indication of the difference in passenger traffic conditions is obtained from a comparison of the volume of metropolitan and suburban and country traffic in each State. This is shown below for the year 1936-37—

RAILWAYS, STATE.—METROPOLITAN AND SUBURBAN. AND COUNTRY PASSENGER TRAFFIC AND RECEIPTS, 1936-37.

State.	Passenger Journeys.			Revenue.		
	Metropolitan and Suburban.	Country.	Total.	Metropolitan and Suburban.	Country.	Total.
	No.	No.	No.	£	£	£
N.S.W. ..	166,590,647	11,246,618	177,837,265	2,715,236	2,907,693	5,622,929
Victoria ..	135,329,598	6,013,655	141,343,253	2,321,512	1,485,346	3,806,858
Queensland	20,517,211	5,009,895	25,527,106	294,802	1,194,651	1,489,453
S. Australia	16,580,742	1,195,887	17,776,629	228,662	363,582	592,244
W. Australia	11,364,099	1,345,484	12,709,583	143,027	415,743	558,770
Tasmania ..	(a)	(a)	2,331,516	(a)	(a)	120,676
Total ..	350,382,297 (b)	24,811,539 (b)	377,525,352	5,703,239 (b)	6,367,015 (b)	12,190,930

(a) Not available.

(b) Incomplete, exclusive of Tasmania.

(iii) *Electrification of Suburban and Country Railways.* Reference to the electrification of the Melbourne and Sydney suburban railways will be found in Year Book No. 22, p. 285.

(iv) *Goods Traffic.* (a) *Classification.* The differing conditions of the traffic in each State might also, to some extent, be analysed by an examination of the tonnage of various classes of commodities carried, and of the revenue derived therefrom. Comparative particulars regarding the quantities of some of the leading classes of commodities

carried are available for all the States, and the following table shows the number of tons of various representative commodities carried, with the percentage of each class on the total, for the financial year 1936-37:—

RAILWAYS, STATE.—CLASSIFICATION OF COMMODITIES CARRIED, 1936-37.

State.	Coal and Coke.	Other Minerals.	Grain and Flour.	Hay, Straw and Chaff.	Wool.	Live Stock.	All other Com- modities.	Total.
TONS CARRIED.								
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
New South Wales	7,247,018	1,366,805	1,863,764	282,000	180,120	832,601	2,002,197	14,684,885
Victoria ..	215,843	251,318	1,400,773	108,483	60,404	697,004	3,070,277	6,812,002
Queensland ..	662,085	577,015	220,575	842,702	77,074	405,250	2,182,379	4,074,885
South Australia	132,005	581,054	557,246	24,543	32,540	149,780	935,011	2,382,779
Western Australia	282,561	309,263	618,995	57,896	24,840	109,578	1,395,315	2,798,448
Tasmania ..	472,712	(b)	(a)58,661	22,270	4,219	24,771	241,159	823,792
All States ..	9,044,624	3,056,555	4,735,014	1,397,984	397,490	2,219,740	11,626,338	32,477,751

PERCENTAGE OF TOTAL TONNAGE CARRIED.

	%	%	%	%	%	%	%	%
New South Wales	49.36	9.31	12.69	1.92	1.29	5.67	19.76	100.00
Victoria ..	3.61	3.69	20.69	2.47	1.02	10.24	58.28	100.00
Queensland ..	13.33	11.62	4.55	16.94	1.55	8.14	43.87	100.00
South Australia	5.56	23.13	23.39	1.03	1.36	6.29	39.24	100.00
Western Australia	10.10	11.05	22.12	2.07	0.89	3.91	49.86	100.00
Tasmania ..	57.38	(b)	7.12	2.70	0.51	3.01	29.28	100.00
All States ..	27.85	9.41	14.58	4.31	1.22	6.83	35.80	100.00

(a) Includes other agricultural produce.

(b) Included with coal and coke.

(b) *Revenue.* The following table shows the revenue derived from goods and live stock traffic during 1936-37 according to a classification which has been adopted by all States:—

RAILWAYS, STATE.—GOODS, ETC., TRAFFIC—REVENUE, 1936-37.

Class.	New South Wales.	Victoria.	Queens- land.	South Australia.	Western Australia.	Tasmania.	Total.
	£	£	£	£	£	£	£
General merchandise	6,049,876	3,120,632	3,187,090	1,020,188	1,770,364	186,259	15,334,399
Wheat ..	(a)	791,636	(a)	275,807	314,485	(a)	1,381,928
Wool ..	995,783	190,454	303,190	70,468	93,752	4,920	1,416,599
Live stock ..	1,187,163	764,146	638,671	192,101	131,692	21,680	2,935,753
Minerals—							
Coal and coke ..	1,385,894	73,213	311,065	36,075	160,780	(b) 24,471	1,991,498
Others ..	341,751	83,325	380,685	503,042	100,117	(c) 86,356	1,196,306
Total ..	9,660,767	5,028,806	4,902,697	2,098,591	2,541,170	323,892	24,555,923

(a) Included with General Merchandise.

(b) Native coal.

(c) Minerals other than native coal.

(d) Incomplete.

In New South Wales and Victoria, electric motor coaches are used for the transfer of parcels from the central stations to suburban stations, and in Victoria to convey luggage and parcels between the two main terminal stations.

14. **Passenger-Mileage and Ton-Mileage.**—(i) *Passenger-Miles.* The subjoined table gives particulars of passenger-mileage in respect of all States for the years 1932-33 to 1936-37.

RAILWAYS. STATE.—SUMMARY OF "PASSENGER-MILES."

Year ended 30th June—	Passenger Train-Mileage.	Number of Passenger Journeys.	Total Passenger-Miles.	Amount Received from Passengers.	Average Number of Passengers carried per Train-Mile.	Average Mileage per Passenger Journey.	Average Earnings per Passenger-Mile.	Average Fare per Passenger Journey.	Density of Traffic per Average Mile Worked
	Miles. (,000 omitted.)	No. (,000 omitted.)	No. (,000 omitted.)	£	No.	Miles.	d.	d.	No.
NEW SOUTH WALES.									
1933	16,382	132,867	1,422,105	5,025,484	87	10.70	0.85	9.08	230,911
1934	16,326	142,520	1,543,531	4,869,235	95	10.83	0.76	8.20	250,418
1935	16,926	160,212	1,745,075	5,153,196	103	10.89	0.71	7.72	283,115
1936	17,448	171,143	1,864,368	5,433,176	107	10.89	0.70	7.62	304,427
1937	17,837	177,837	1,952,887	5,622,929	109	10.98	0.69	7.59	318,881
VICTORIA.									
1933	10,541	130,190	1,087,543	3,561,588	103	8.35	0.79	6.57	230,363
1934	10,559	131,307	1,079,981	3,502,513	102	8.22	0.78	6.40	228,761
1935	10,854	139,689	1,156,142	3,685,978	107	8.28	0.77	6.33	244,894
1936	11,458	139,539	1,180,297	3,713,411	107	8.40	0.76	6.39	250,022
1937	11,886	141,343	1,233,554	3,800,858	104	8.73	0.74	6.46	261,303
QUEENSLAND. (b)									
1933	4,658	22,147	(a)	1,301,405	(a)	(a)	(a)	14.10	(a)
1934	4,808	22,806	(a)	1,375,542	(a)	(a)	(a)	14.48	(a)
1935	5,082	24,250	(a)	1,448,924	(a)	(a)	(a)	14.34	(a)
1936	5,430	25,159	(a)	1,400,550	(a)	(a)	(a)	14.02	(a)
1937	5,504	25,444	(a)	1,446,773	(a)	(a)	(a)	13.65	(a)
SOUTH AUSTRALIA.									
1933	3,152	16,074	172,106	519,277	55	10.71	0.72	7.75	68,046
1934	3,202	16,325	175,559	516,253	55	10.75	0.71	7.59	69,411
1935	3,251	16,660	177,655	524,884	55	10.66	0.71	7.56	70,237
1936	3,423	17,431	189,061	548,577	55	10.85	0.70	7.55	74,747
1937	3,504	17,777	205,329	592,244	59	11.55	0.69	8.00	81,179
WESTERN AUSTRALIA.									
1933	(c) 2,151	11,732	(a)	503,177	(a)	(a)	(a)	10.29	(a)
1934	(c) 2,254	12,103	(a)	526,756	(a)	(a)	(a)	10.45	(a)
1935	(c) 2,319	12,876	(a)	563,687	(a)	(a)	(a)	10.51	(a)
1936	(c) 2,386	12,422	(a)	564,365	(a)	(a)	(a)	10.90	(a)
1937	(c) 2,398	12,710	(a)	558,770	(a)	(a)	(a)	10.55	(a)
TASMANIA.									
	(d)								
1933	(c) 692	1,678	26,795	104,978	39	15.09	0.94	15.01	41,549
1934	(c) 697	1,780	27,900	107,097	40	15.02	0.92	14.36	43,356
1935	(c) 799	2,134	31,094	111,578	39	14.57	0.86	12.55	48,217
1936	(c) 858	2,322	32,911	120,328	39	14.17	0.88	12.44	51,033
1937	(c) 949	2,332	34,653	120,676	37	14.86	0.84	12.42	53,231

(a) Not available.

(b) Exclusive of Queensland portion of Grafton-South Brisbane (uniform gauge) line.

(c) Estimated.

(d) Amended to include Rail Motor Mileages, previously excluded.

(ii) *Ton-Miles.* Particulars regarding total "ton-miles" are given in the following table for each of the years 1932-33 to 1936-37:—

RAILWAYS, STATE.—SUMMARY OF "TON-MILES."

Year ended 30th June—	Goods-Train-Mileage.	Total Tons Carried.	Total "Ton-miles."	Earnings.	Average Freight-paying Load Carried per "Train."	Average Haul per Ton.	Earnings per "Ton-mile."	Density of Traffic per Average Mile Worked.
	No. (,000 omitted.)	No. (,000 omitted.)	No. (,000 omitted.)	£	Tons.	Miles.	d.	Tons.
NEW SOUTH WALES.								
1933	9,180	d 10,889	1,550,327	8,169,056	169	142.38	1.25	252,129
1934	8,847	d 11,066	1,410,854	7,802,130	159	127.49	1.31	228,892
1935	9,349	d 12,065	1,522,781	8,582,612	163	120.23	1.34	247,951
1936	10,253	d 13,514	1,666,603	9,154,921	163	123.32	1.32	272,134
1937	10,711	d 14,336	1,731,904	9,660,767	162	120.80	1.34	282,797
VICTORIA.								
1933	4,781	6,244	734,970	4,773,699	178	117.70	1.55	155,681
1934	4,752	5,858	693,741	4,572,038	146	118.42	1.58	146,948
1935	4,682	6,010	693,783	4,555,722	148	115.44	1.58	146,957
1936	4,933	6,424	759,937	4,768,127	154	118.15	1.51	160,787
1937	5,325	6,813	838,002	5,028,806	157	123.00	1.44	177,514
QUEENSLAND.(b)								
1933	6,073	3,620	(e) 517,502	3,944,275	(c) 85	c147.72	(c) 1.82	(c) 79,666
1934	6,236	4,152	(e) 541,238	4,080,906	(c) 87	c130.34	(c) 1.81	(c) 83,294
1935	7,788	4,841	(e) 684,008	4,939,658	(c) 88	c141.30	(c) 1.73	(c) 105,266
1936	6,847	4,589	(e) 615,972	4,411,617	(c) 90	c134.22	(c) 1.72	(c) 94,797
1937	7,343	4,880	(e) 665,989	4,824,403	(c) 91	c139.89	(c) 1.73	(c) 105,658
SOUTH AUSTRALIA.								
1933	1,758	2,388	283,565	1,924,982	161	118.76	1.63	112,114
1934	1,728	2,142	265,682	1,762,899	154	124.06	1.59	105,044
1935	1,830	2,333	281,068	1,853,188	154	120.50	1.58	111,123
1936	2,039	2,465	312,789	2,027,287	153	126.91	1.56	123,664
1937	2,102	2,383	314,462	2,098,591	150	131.97	1.60	124,325
WESTERN AUSTRALIA.								
1933	(a) 3,132	2,840	339,007	2,110,065	108	119.37	1.49	79,237
1934	(a) 3,136	2,652	317,870	2,050,813	101	119.85	1.56	73,055
1935	(a) 3,550	2,903	362,252	2,405,046	102	124.77	1.59	83,101
1936	(a) 3,709	2,887	353,011	2,526,619	95	122.29	1.72	80,907
1937	(a) 3,677	2,798	346,777	2,541,170	94	123.92	1.76	79,588
TASMANIA.								
1933	(a) 612	(f) 490	27,246	(f) 223,262	45	55.63	1.98	42,248
1934	(a) 636	(f) 540	27,023	(f) 230,597	43	51.17	1.98	42,833
1935	(a) 678	(f) 656	30,671	(f) 236,857	45	46.73	1.86	47,561
1936	(a) 801	(f) 746	37,837	(f) 274,541	47	50.74	1.74	58,672
1937	(a) 915	(f) 799	41,151	(f) 302,213	45	51.50	1.76	63,212

(a) Estimated. (b) Exclusive of Queensland portion of Grafton-South Brisbane (uniform gauge) line. (c) Approximate. (d) Exclusive of coal, on which way leave charges only were collected. (e) Exclusive of Cocktown, Normanton, and Innisfail and Mourilyan tramways. (f) Exclusive of live stock.

In New South Wales the tonnages of coal on which way leave charges only have been collected were 258,893 tons (1933), 297,960 tons (1934), 353,309 tons (1935), 324,937 tons (1936), and 348,442 tons (1937).

15. *Rolling Stock*.—The following table shows the numbers of rolling stock in use during the years 1933 to 1937. Further details may be found in the Transport and Communication Bulletin No. 28.

RAILWAYS, STATE.—ROLLING STOCK.

State.	At 30th June—														
	1933.			1934.			1935.			1936.			1937.		
	Locos.	Coaching Stock.	Other Stock.	Locos.	Coaching Stock.	Other Stock.	Locos.	Coaching Stock.	Other Stock.	Locos.	Coaching Stock.	Other Stock.	Locos.	Coaching Stock.	Other Stock.
New South Wales ..	1,432	2,710	23,705	1,432	2,676	23,498	1,493	2,657	23,457	1,378	2,704	23,340	1,315	2,725	23,293
Victoria ..	650	2,526	20,010	619	2,503	20,610	662	2,176	21,064	682	2,150	21,057	588	2,174	21,021
Queensland ..	776	1,329	19,008	770	1,333	18,657	734	1,356	18,774	750	1,381	18,738	753	1,357	18,744
South Australia ..	438	668	9,141	423	620	9,100	460	611	8,833	375	620	8,720	327	608	8,430
Western Australia ..	420	493	11,250	420	493	11,272	420	493	11,175	420	493	11,140	417	488	11,070
Tasmania ..	94	224	2,045	94	223	2,016	91	225	2,030	92	220	2,045	93	220	2,046
All States ..	3,810	7,950	86,132	3,764	7,848	85,789	3,953	7,813	85,282	3,697	7,854	84,095	3,524	7,915	84,010

16. *Employees*.—(i) *At 30th June*. The following table gives the number of railway employees in each year from 1933 to 1937 inclusive, classified according to (a) salaried staff, and (b) wages staff :—

RAILWAYS, STATE.—EMPLOYEES.(a)

State.	At 30th June—									
	1933.		1934.		1935.		1936.		1937.	
	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.
New South Wales	5,724	32,982	5,734	33,968	5,830	35,683	5,888	35,076	6,664	34,681
Victoria ..	3,621	18,159	3,533	17,450	3,499	18,278	3,402	19,053	3,464	20,069
Queensland ..	2,917	12,554	2,948	13,854	3,033	14,305	3,065	13,755	3,101	14,206
South Australia ..	1,148	5,784	1,173	5,563	1,213	5,962	1,280	6,490	1,316	6,816
Western Australia	1,178	6,135	1,205	7,154	1,249	7,064	1,277	7,062	1,295	7,154
Tasmania ..	166	1,133	179	1,156	171	1,296	175	1,497	204	1,819
All States ..	14,754	76,747	14,772	79,145	14,995	82,588	15,087	82,933	16,044	84,745

(a) Exclusive of construction staff.

In the period under review the totals of salaried and wages staffs increased from 91,501 in 1933 to 100,789 in 1937, a rise of 10.2 per cent.

(ii) *Average staff employed, 1936-37*. The number of employees at one point of time does not afford the best index of employment in railway work. It is considered that the following statement of the average number employed throughout the year indicates more accurately the labour requirements of the railways :—

AVERAGE STAFF EMPLOYED, 1936-37.

State.	Operating Staff.		Construction Staff.		All Employees—Staff.	
	Salaried.	Wages.	Salaried.	Wages.	Salaried.	Wages.
New South Wales ..	6,329	34,002	43	749	6,372	34,751
Victoria ..	3,441	19,662	..	..	3,441	19,662
Queensland ..	3,085	14,251	6	132	3,091	14,483
South Australia ..	1,209	6,709	6	59	1,305	6,768
Western Australia ..	1,283	7,245	7	179	1,290	7,424
Tasmania ..	204	1,819	..	..	204	1,819
All States ..	15,641	83,788	62	1,119	15,703	84,907

In the State of Victoria, railway construction work is not under the control of the Railways Commissioners. This was also the case in Tasmania until 1935-36, when it was decided to establish a Railway Construction Branch. The latter, however, was not established and future construction work has been placed under the direction of the Chief Engineer of the Way and Works Section.

17. **Accidents.**—The following table gives particulars of the numbers of persons killed and injured through train accidents and the movement of rolling stock on the Government railways in each State for each of the years 1933 to 1937 inclusive:—

RAILWAYS, STATE.—ACCIDENTS.

State.	In year ended 30th June—									
	1933.		1934.		1935.		1936.		1937.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
New South Wales	69	329	53	389	51	421	66	442	55	479
Victoria ..	52	177	49	164	41	121	46	188	55	144
Queensland ..	26	100	21	161	21	143	20	156	26	143
South Australia ..	13	127	11	127	15	119	14	143	14	172
Western Australia	15	236	21	327	13	611	14	383	18	703
Tasmania ..	1	10	1	20	2	22	4	17	3	46
All States ..	176	979	156	1,188	143	1,437	164	1,329	171	1,687

Further details relating to the number of passengers, employees and other persons affected by railway accidents are published on page 25 of Transport and Communication Bulletin No. 28.

18 **Consumption of Oil and Fuel.**—The appended table shows the quantities and values of oil and fuel consumed by the various Government Railway Departments during the year 1936-37:—

GOVERNMENT RAILWAYS.—CONSUMPTION AND VALUE OF OIL AND FUEL, 1936-37.

Government Railways.	Oil.						Coal.		
	Lubricating.			Fuel and Light, etc.					
	Gallons.	Value.	Average Cost per Gallon.	Gallons.	Value.	Average Cost per Gallon.	Tons.	Value.	Average Cost per Ton.
		£ s. d.			£ s. d.			£ s. d.	
New South Wales	346,454	38,229	2 2	1,106,674	36,929	0 8	1,411,436	800,850	0 12 2
Victoria ..	190,230	16,052	1 8	1,628,996	54,521	0 8	527,155	457,203	0 17 1
Queensland ..	207,874	21,197	2 0	167,588	8,143	1 0	420,226	370,415	0 17 3
South Australia ..	83,819	9,458	2 3	1,142,078	53,896	0 11	179,324	210,543	1 1 0
Western Australia	83,724	8,901	2 2	342,384	11,832	0 8	326,797	239,917	0 14 3
Tasmania ..	38,021	4,078	2 2	207,702	7,576	0 9	59,080	66,397	1 2 6
Total States ..	950,122	97,915	2 1	4,595,422	172,897	0 9	2,924,018	2,205,385	0 15 1
Federal ..	21,817	2,100	1 11	142,183	5,615	0 10	25,283	37,222	1 4 5
Total, Australia..	971,969	100,015	2 1	4,737,605	178,542	0 9	2,949,301	2,242,607	0 15 2

The range in the average cost per ton of coal from 12s. 2d. in New South Wales to £1 9s. 5d. per ton for coal used on the Federal Railways is attributable to the comparatively low haulage expenses incurred in the coal-producing States. The average cost of coal during 1936-37 showed an increase of os. 9d. on that for 1935-36.

19. **Passenger Fares and Goods Rates.**—(i) *General.* Fares and rates are changed from time to time to suit the varying necessities of the Railways, and when drought conditions prevail special concessions are made in the rates for the carriage of fodder and water and for the transfer of starving stock to other areas.

The following fares and rates, obtained from the various Railway publications, were in operation at the 30th June, 1937.

(ii) *Passenger Fares.* Two classes are provided for passenger traffic and the fares charged may be grouped as follows:—(a) Fares between specified stations (including suburban fares); (b) Fares computed according to mileage rates; (c) Return, periodical and excursion fares; and (d) Special fares for working men, school pupils, and others. Fares in class (a) are issued at rates lower than the ordinary mileage rates. Fares in class (b) are charged between stations not included in class (a).

The following table shows the single passenger fares for different distances charged in each State and on the Federal Railways between stations for which specific fares are not fixed:—

**GOVERNMENT RAILWAYS.—ORDINARY PASSENGER MILEAGE RATES—
SINGLE FARES AT 30th JUNE, 1937.**

For a Journey of—												
Government Railways.	50 Miles.		100 Miles.		200 Miles.		300 Miles.		400 Miles.		500 Miles.	
	First Class.	Second Class.	First Class.	Second Class.	First Class.	Second Class.	First Class.	Second Class.	First Class.	Second Class.	First Class.	Second Class.
New South Wales ..	s. d. 9 5	s. d. 6 6	s. d. 19 1	s. d. 13 2	s. d. 35 0	s. d. 24 8	s. d. 51 7	s. d. 35 7	s. d. 66 8	s. d. 46 0	s. d. 75 9	s. d. 52 3
Victoria ..	10 3	6 10	19 10	13 3	39 8	26 5	55 5	36 11	67 2	44 10	79 0	52 7
Queensland ..	10 9	7 6	20 0	13 0	37 0	24 0	53 0	34 0	68 0	42 0	82 0	50 0
South Australia (a) ..	..	6 8	..	13 3	..	26 6	..	39 9	..	53 0	..	..
Western Australia ..	8 4	5 3	16 8	10 5	33 4	20 10	50 0	33 3	66 8	41 8	83 4	52 1
Tasmania ..	9 0	6 9	18 3	13 9	36 9	27 6	54 9	41 0	..	..	..	..
Average ..	9 7	6 7	18 9	12 10	36 6	25 0	52 11	36 9	67 2	45 6	80 0	51 9
Average per mile ..	d. 2.30	d. 1.58	d. 2.25	d. 1.54	d. 2.19	d. 1.50	d. 2.12	d. 1.47	d. 2.02	d. 1.37	d. 1.92	d. 1.24
Federal—	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Trans-Australian and	9 7	6 5	19 2	12 9	38 4	25 7	57 6	38 4	70 0	49 8	81 0	54 4
Central Australia ..	11 0	7 8	22 11	15 3	45 10	30 7	68 9	45 10	..	..	..	..
North Australia ..	..	..	..	..	..	..	..	..	..	..	..	..
Average ..	10 7	7 1	21 1	14 0	42 1	28 1	63 2	42 1	70 0	46 8	81 6	54 4
Average per mile ..	d. 2.54	d. 1.70	d. 2.53	d. 1.68	d. 2.53	d. 1.69	d. 2.53	d. 1.68	d. 2.10	d. 1.40	d. 1.96	d. 1.30

(a) First class tickets are available only on certain lines connecting with the services of other States.

(iii) *Parcel Rates.* Parcels may be transmitted by passenger train at rates based upon weight and distance carried. The charges vary slightly in the different systems. In New South Wales the stamped or prepaid charges range from 5d. for a parcel not exceeding 1 lb. for any distance up to 25 miles to 18s. 8d. for a parcel weighing between 85 and 112 lb. for a distance of 500 miles. In Victoria the corresponding charges are 6d. and 19s. 9d., in Queensland 6d. and 18s. 10d., in South Australia 6d. and 17s. 4d., in Western Australia 6d. and 15s. 6d. (for a parcel between 99 and 112 lb.), in Tasmania

3d. (for a parcel not exceeding 2 lb.) and 10s. 9d. (for a distance of 350 miles), on the Trans-Australian and Central Australia Railways 6d. and 10s., and on the North Australia Railway 6d. (for a parcel not exceeding 3 lb.) and 18s. 4d. (for a distance of 400 miles).

(iv) *Goods Rates.* (a) *General.* In each Railway system there are various classes of rates charged for the conveyance of goods and merchandise. These classes are usually as follows:—Mileage rates, based on distance, irrespective of locality; District rates, applicable only between specified places; Local rates, charged on lines in respect of which it is provided that the rates charged thereon shall be as though such lines were separate from other lines; Commodity rates, applicable only in respect of specified articles; Package rates, applicable only to single packages of specified descriptions; Through rates, applicable to goods carried by rail and another method of transport or by railways controlled by several authorities; and Special rates, other than those before mentioned.

Freight itself is generally divided according to a number of different classes (e.g., in New South Wales the classes are Manure, Coal, Miscellaneous, "A," "B," "C," 1st and 2nd), but as limitations of space forbid a detailed analysis of the rate applicable to each class, the following table gives particulars of highest and lowest class freights only. Generally, the highest class freight includes expensive, bulky, or fragile articles, while the lowest class comprises many ordinary articles of merchandise, particularly those identified or connected with the primary industries.

(b) *Highest and Lowest Class Freights.* The ordinary mileage rates charged per ton for hauls of different distances in respect of (a) the highest-class freight and (b) the lowest-class freight are given hereunder:—

**GOVERNMENT RAILWAYS.—HIGHEST AND LOWEST CLASS ORDINARY
FREIGHT MILEAGE RATES AT 30th JUNE, 1937.**

Government Railways.	Charge per Ton for a Haul of—											
	50 Miles.	100 Miles.	200 Miles.	300 Miles.	400 Miles.	500 Miles.	50 Miles.	100 Miles.	200 Miles.	300 Miles.	400 Miles.	500 Miles.
	Highest Class Freight.						Lowest Class Freight.					
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
New South Wales ..	39 2	76 8	130 10	160 0	180 0	197 6	5 0	6 9	8 5	10 0	11 3	12 4
Victoria ..	33 6	65 0	122 3	167 3	205 6	244 3	3 8	5 7	8 3	11 0	12 3	13 4
Queensland ..	60 0	101 8	180 0	248 4	286 8	301 8	5 0	5 6	10 0	12 0	13 6	15 0
			(a)	(a)	(b)	(a) (b)						
South Australia ..	39 0	67 4	131 1	170 6	211 0	252 1	5 0	10 1	17 1	19 2	19 2	19 2
Western Australia ..	31 4	58 9	103 0	140 2	170 7	195 8	3 3	4 1	6 2	8 3	10 4	12 5
Tasmania ..	38 2	71 6	129 10	186 1	..	..	6 2	10 10	14 2	15 10	..	..
Average ..	39 10	73 6	131 3	178 9	211 4	238 3	4 10	7 2	10 8	12 9	13 4	14 5
Average per mile ..	9.56	8.82	7.88	7.15	6.34	5.48	1.16	0.86	0.64	0.51	0.40	0.35
Federal—	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Trans - Australian,												
Central Australia												
and North Aus-												
tralia ..	40 10	78 0	145 11	200 2	247 10	288 6	4 6	8 1	13 10	16 7	18 10	21 1
Average per mile ..	9.80	9.36	8.76	8.01	7.44	6.92	1.08	0.97	0.83	0.66	0.57	0.51

(a) Maximum rate on highest class goods sent to the Western lines from Brisbane, Rockhampton or Townsville up to 500 miles is 236s. 8d. per ton. (b) Rates from stations south of Yandaran and Monto to stations north and west of Rockhampton, and *vice versa*, 291s. 8d. (400 miles) and 336s. 8d. (500 miles) per ton, provided that they are not more than the sum of the local rates to and from Rockhampton.

NOTE.—A preliminary Summary of the Operations of all Government Railways for the year 1937-38 will be found in the Appendix to this volume.

§ 4. Private Railways.

1. **Total Mileage Open, 1936-37.**—The bulk of the private railways in Australia have been laid down for the purpose of hauling timber, firewood, sugar-cane, coal, or other minerals, and they are not generally used for the conveyance of passengers or for public traffic. In many cases the lines are practically unballasted and easily removable.

The railways referred to in this section include only lines open to the public for general passenger and goods traffic. Complete particulars of lines used for special purposes only for the year 1936-37 are not available.

2. **Lines Open for General Traffic.**—The following statement gives a summary of the operations of private railways open for general traffic for the year 1936-37 :—

RAILWAYS, PRIVATE.—SUMMARY, 1936-37.

State.	Companies from which returns were received.	Miles Open (Route).	Capital Cost.	Gross Revenue.	Working Expenses.	Train-Miles.	Passenger Journeys.	Tonnage of Goods, etc.	Number of Employees.	Rolling Stock.			
										Locos.	Coaches.	Other Vehicles.	
	No.	Miles.	£	£	£	Miles.	No.	Tons.	No.	No.	No.	No.	
New South Wales (b) ..	6	90.23	1,278,467	363,906	207,864	629,395	1,258,652	1,437,361	479	64	3	724	
Victoria	2	24.94	81,668	8,771	5,755	21,320	10,582	310,888	12	5	3	30	
Queensland (b)	11	228.52	308,623	33,528	30,830	94,656	3,513	251,809	64	14	4	451	
South Australia (b) ..	1	50.90	(a)	(a)	(a)	83,957	240	1,962,624	35	7	1	226	
Western Australia	1	277.00	2,251,726	155,207	74,687	250,384	26,231	111,473	273	23	23	536	
Tasmania (b)	3	131.57	800,384	143,500	112,503	211,701	50,613	268,023	260	20	19	305	
All States (b)	24	803.16	4,819,888	705,015	434,639	1,296,473	1,349,531	4,002,448	1,129	133	53	2,272	

(a) Not available.

(b) Incomplete.

The particulars given in the table are incomplete in respect of the States of New South Wales, Queensland, South Australia and Tasmania. In New South Wales and Queensland several of these lines, although owned by private companies, are operated by the Government Railway Departments, and Government rolling stock is used thereon. In some cases the figures relating to tonnage of goods, etc., include particulars of coal, ores, timber, sugar cane, etc., carried for private purposes, as figures relating to goods carried for the general public are not kept separate.

C. TRAMWAYS.

1. **Systems in Operation.**—(i) *General.* Tramway systems are in operation in all the States, and in recent years considerable extension has been made in the use of electrical traction, the benefit of which is now enjoyed in a number of the larger towns.

In many parts of Australia private lines used for special purposes in connexion with the timber, mining, sugar, or other industries are often called tramways, but they are more properly railways (see above), and the traffic on them has nothing in common with that of the street tramways for the conveyance of passengers, which are dealt with in the present section.

(ii) *Total Mileage Open and Classification of Lines.* The following tables show for each State the total mileage of tramway lines open for general passenger traffic for the

year 1936-37, classified (a) according to the controlling authority, (b) according to the motive power used, and (c) according to gauge; and for Australia according to motive power for the years 1932-33 to 1936-37:—

TRAMWAYS.—ROUTE MILEAGE OPEN, 1936-37.

Controlling Authority, Nature of Motive Power, and Gauge.	N.S. Wales.	Victoria.	Q'land.	South Australia.	Western Australia.	Tasmania.	Total Australia.
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ACCORDING TO CONTROLLING AUTHORITY.

	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Government ..	190.30	174.40	..	..	52.16	..	416.86
Municipal ..	..	..	66.55	76.11	11.90	28.70	183.26
Private ..	3.50	..	..	..	9.40	..	12.90
Total ..	193.80	174.40	66.55	76.11	73.46	28.70	613.02

ACCORDING TO MOTIVE POWER.

	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Electric ..	184.74	163.35	59.90	76.11	65.16	28.70	577.96
Steam or Petrol ..	9.06	..	6.65	..	6.35	..	22.06
Cable ..	..	11.05	..	..	..	..	11.05
Horse ..	..	..	..	..	1.95	..	1.95
Total ..	193.80	174.40	66.55	76.11	73.46	28.70	613.02

ACCORDING TO GAUGE.

Gauge—							
5 ft. 3 in. ..	..	5.18	..	..	..	..	5.18
4 ft. 8½ in. ..	193.80	169.22	59.90	76.11	..	..	499.03
3 ft. 6 in. ..	..	..	6.65	..	73.46	28.70	108.81
Total ..	193.80	174.40	66.55	76.11	73.46	28.70	613.02

Further details on this subject may be obtained from page 28 of Transport and Communication Bulletin No. 28.

TRAMWAYS.—ROUTE MILEAGE OPEN, AUSTRALIA.

Nature of Motive Power.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
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ACCORDING TO MOTIVE POWER.

	Miles.	Miles.	Miles.	Miles.	Miles.
Electric ..	571.87	573.59	570.46	570.64	577.96
Steam or Petrol ..	21.97	21.81	21.81	22.05	22.06
Cable ..	24.29	24.29	24.29	16.70	11.05
Horse ..	1.50	2.51	2.51	2.51	1.95
Total ..	619.63	622.20	619.07	611.90	613.02

(iii) *Cost of Construction and Equipment.* The table hereunder shows the total cost of construction and equipment of all tramways to the 30th June, 1937, classified according to the nature of the motive power. Further details relating to controlling authorities are available on page 28 of Transport and Communication Bulletin No. 28.

TRAMWAYS.—COST OF CONSTRUCTION AND EQUIPMENT, 1936-37.

Nature of Motive Power.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
ACCORDING TO MOTIVE POWER.							
Electric	£ 8,824,167	£ 8,145,372	£ 2,291,010	£ 4,310,024	£ 1,750,438	£ 663,196	£ 25,984,207
Steam or Petrol	92,473	..	53,235	..	64,761	..	210,469
Cable ..	..	744,139	..	..	..	..	744,139
Horse ..	..	..	..	..	10,104	..	10,104
Total ..	8,916,640	8,889,511	2,344,245	4,310,024	1,825,303	663,196	26,948,919

2. *New South Wales.*—(i) *General.* With the exception of a steam tramway 3½ miles in length from Parramatta to Duck River, which is operated by Sydney Ferries Ltd., the tramways of New South Wales are the property of the Government, and are under the control of the Department of Road Transport and Tramways. In Sydney and suburbs, at the 30th June, 1937, the Government tramways were divided into six distinct systems, five of which were operated by electricity, and one, the Kogarah to Sans Souci line, by steam. The latter service was replaced by trolley buses on the 3rd July, 1937. The gauge of all lines is 4 ft. 8½ in.

(ii) *Particulars of Working.*—*Electric and Steam Tramways.* The following table gives a summary of the operations of all tramways for the years 1933 to 1937 :—

ELECTRIC AND STEAM TRAMWAYS.—NEW SOUTH WALES.—SUMMARY.

Year ended 30th June—	Mileage Open for Traffic (Route).	Total Cost of Construction and Equipment.	Gross Revenue.	Working Expenses.	Net Earnings.	Interest.	Percentage of Working Expenses on Gross Revenue.	Percentage of Net Earnings on Capital Cost.	Passengers carried.	Persons employed at end of year.
	Miles.	£	£	£	£	£	%	%	No. '000.	No.
1933 ..	197.47	8,204,065	3,268,200	2,781,968	486,232	484,057	85.12	5.93	295,783	8,033
1934 ..	194.40	8,440,078	3,230,606	2,535,038	701,658	455,986	78.25	8.33	290,639	7,922
1935 ..	191.20	8,937,416	3,323,498	2,717,383	606,115	442,905	81.76	6.78	307,616	8,112
1936 ..	191.55	8,875,789	3,390,443	2,686,295	704,148	427,919	79.23	7.93	314,065	8,224
1937 ..	193.80	8,916,640	3,425,300	2,711,304	713,996	403,400	79.16	8.01	317,251	8,285

(a) Exclusive of depreciation charges on electric tramways, included prior to 1936.

3. **Victoria.**—(i) *General.* In Melbourne, electric and cable tramway systems with route mileages of 123.70 miles and 11.05 miles respectively are worked by the Melbourne and Metropolitan Tramways Board, while two electric tramways, (a) St. Kilda to Brighton 5.18 miles and (b) Sandringham to Black Rock 2.43 miles, belong to and are operated by the Railways Commissioners. The State Electricity Commission operates 10.98 miles of electric tramways at Geelong, acquired from the Melbourne Electric Supply Company on the 1st September, 1930, and 13.20 miles of similar traction at Ballarat and 7.86 miles at Bendigo, taken over from the Electric Supply Company of Victoria on 1st July, 1934. The Melbourne cable trams are being gradually replaced by electric trams.

A short account of the formation of the Melbourne Tramway and Omnibus Company and of the Tramways Board will be found in earlier issues of this work (see Year Books No. 7 page 652, No. 9 page 679 and No. 15 page 593).

With the exception of the St. Kilda-Brighton line, which is of 5 ft. 3 in. gauge, all the tramways of the State are of 4 ft. 8½ in. gauge.

(ii) *Particulars of Working.*—*Electric and Cable Tramways.* The following table gives particulars for all tramways in Victoria during each of the years 1933 to 1937 inclusive :—

ELECTRIC AND CABLE TRAMWAYS.—VICTORIA.—SUMMARY.

Year ended 30th June—	Mileage Open for Traffic (Route).	Total Cost of Construction and Equipment.	Gross Revenue.	Working Expenses.	Net Earnings.	Interest.	Percentage of Working Expenses on Gross Revenue.	Percentage of Net Earnings on Capital Cost.	Passengers carried.	Persons employed at end of year
	Miles.	£	£	£	£	£	%	%	No. '000.	No.
1933 ..	178.67	8,600,453	2,058,241	1,285,984	772,257	325,412	62.48	8.98	176,917	4,732
1934 ..	178.77	8,562,299	2,088,716	1,306,101	782,415	306,915	62.54	9.14	179,779	4,870
1935 ..	178.40	8,444,725	2,163,738	1,341,587	822,151	283,136	62.00	9.74	186,484	4,995
1936 ..	176.70	8,843,346	2,182,952	1,326,013	856,939	277,328	60.74	9.69	186,800	5,003
1937 ..	174.40	8,889,511	2,255,698	1,396,309	859,389	266,332	61.90	9.67	192,182	4,878

(a) Including figures relating to cost of items not included prior to 1936.

4. **Queensland.**—(i) *General.* The electric tramways in the city and suburbs of Brisbane were controlled by a private company, with head office in London, until the 31st December, 1922, on which date they were purchased by the Queensland Government which, under the provisions of the Brisbane Tramway Trust Act 1922, appointed a Trust to control and operate the system until 1st December, 1925, when the control passed to the Brisbane City Council. Under the provisions of the Brisbane City Council Act 1925, the Council took over the liabilities of the Tramway Trust to the extent of £2,000,000 which had been incurred in London, and assumed complete control of the system. The total length of the Brisbane tramways was 50.90 route miles at 30th June, 1937, the gauge of the line being 4 ft 8½ in.

In addition to the electric tramways, a steam tramway operated by the City Council is in operation at Rockhampton. The length of line is 6.65 route miles and the gauge 3 ft. 6 in.

(ii) *Particulars of Working.—Electric and Steam Tramways.* The following table gives particulars of the working of all tramways in Queensland for each year from 1933 to 1937 :—

ELECTRIC AND STEAM TRAMWAYS.—QUEENSLAND.—SUMMARY.

Year ended 30th June—	Mileage Open for Traffic (Route).	Total Cost of Construction and Equipment.	Gross Revenue.	Working Expenses.	Net Earnings.	Interest.	Percentage of Working Expenses on Gross Revenue.	Percentage of Net Earnings on Capital Cost.	Passengers carried.	Persons employed at end of year.
	Miles.	£	£	£	£	£	%	%	No. ,000.	No.
1933 ..	63.51	2,162,631	694,611	479,426	215,185	106,651	60.02	9.95	69,646	1,359
1934 ..	63.51	2,115,469	700,723	501,846	198,877	106,611	71.62	9.40	71,185	1,485
1935 ..	64.18	2,161,118	746,543	543,571	202,972	106,533	72.81	9.39	78,264	1,735
1936 ..	64.83	2,259,467	784,779	587,296	197,483	106,457	74.84	8.74	83,781	1,740
1937 ..	66.55	2,344,245	811,323	609,709	201,614	106,413	75.15	8.60	87,271	1,838

5. *South Australia.—(i) General.* The tramways in Adelaide and suburbs are controlled by a Municipal Tramways Trust created in 1907. Prior to that year, the system was run with horse-traction by several private companies. Electric traction was inaugurated in 1909, and at the 31st July, 1937, the Tramways Trust operated a total route mileage of 76.11 miles of 4 ft. 8½ in. gauge. This is exclusive of a motor bus route mileage of 21.60, although the remaining items in the following table relate to the operations of both trams and buses, separate figures not being available.

(ii) *Particulars of Working.—Electric Tramways.* The following table gives particulars of the working of electric tramways in Adelaide for each year from 1933 to 1937 :—

ELECTRIC TRAMWAYS.—ADELAIDE.—SUMMARY.

Year ended 31st July—	Mileage Open for Traffic (Route).	Total Cost of Construction and Equipment.	Gross Revenue.	Working Expenses.	Net Earnings.	Interest.	Percentage of Working Expenses on Gross Revenue.	Percentage of Net Earnings on Capital Cost.	Passengers carried.	Persons employed at end of year.
	Miles.	£	£	£	£	£	%	%	No. ,000.	No.
1933 ..	82.83	4,068,156	643,274	392,526	250,748	253,930	61.02	6.16	48,134	1,719
1934 ..	82.83	4,072,007	627,807	388,136	230,761	248,760	61.82	5.89	47,021	1,708
1935 ..	82.83	4,077,349	630,335	402,588	237,007	230,130	62.02	5.81	48,118	1,688
1936 ..	76.11	4,200,173	673,737	437,003	237,011	231,811	64.90	5.01	50,625	1,688
1937 ..	76.11	4,310,024	699,426	461,811	237,015	234,723	60.03	5.51	52,082	1,735

6. *Western Australia.—(i) General.* The Perth electric tramways were opened for traffic by a private company on the 24th September, 1899, and the system was subsequently extended to many of the suburbs. Control was taken over by the Government on the 1st July, 1913, and the tramways are now worked in conjunction with the Government railways. The length of line open at 30th June, 1937, was 43.86 route miles. Electric tramways with a route mileage at 31st August, 1937, of 11.90 miles and controlled by the municipal authorities are in operation in Fremantle. In

Kalgoorlie and Boulder a private company controls the electric tramways, of which at the end of 1937, the length of line was 9.40 route miles. All the electric tramways of the State are of 3 ft. 6 in. gauge.

In addition to the electric tramways, there are several tramways, other than electric, with a total length of 8.30 miles of 3 ft. 6 in. gauge. The lines are under control of the Department of Works and Labour, and the total mileage is made up of several short lengths worked by steam, petrol or horses in connexion with the jetties at certain ports and providing communication between the jetties and the goods sheds or warehouses.

(ii) *Particulars of Working.—All Tramways.* The following table gives a summary for all tramways in the State for the years 1933 to 1937 :—

ELECTRIC, STEAM AND HORSE TRAMWAYS.—WESTERN AUSTRALIA.—SUMMARY.

Year ended 30th June—	Mileage Open for Traffic (Route).	Total Cost of Construction and Equipment.	Gross Revenue.	Working Expenses.	Net Earnings.	Interest. (a)	Percentage of Working Expenses on Gross Revenue.	Percentage of Net Earnings on Capital Cost.	Passengers carried.	Persons employed at end of year.
	Miles.	£	£	£	£	£	%	%	No. ,000.	No.
1933 ..	68.84	1,802,831	354,321	290,448	63,873	55,426	81.97	3.54	36,329	741
1934 ..	74.17	1,818,775	354,552	297,367	57,185	56,347	83.87	3.14	36,595	773
1935 ..	74.05	1,811,856	360,490	291,966	68,524	55,261	80.99	3.78	37,108	737
1936 ..	74.28	1,823,046	362,104	298,416	63,688	54,734	82.41	3.49	38,135	753
1937 ..	73.46	1,825,303	361,537	298,476	63,061	52,983	82.56	3.45	37,851	813

(a) Exclusive of Kalgoorlie and Boulder electric tramways operated by a private company.

7. Tasmania.—(i) *General.* In Hobart there is a system of electric tramways consisting of 16.70 route miles of 3 ft. 6 in. gauge controlled by the Hobart Municipal Council. The Launceston City Council operates a length of 12.00 miles of 3 ft. 6 in. gauge in that City.

(ii) *Particulars of Working.—Electric Tramways.* The following table gives a summary of the working of the two electric systems for the years 1933 to 1937 :—

ELECTRIC TRAMWAYS—TASMANIA.—SUMMARY.

Year ended 30th June—	Mileage Open for Traffic (Route).	Total Cost of Construction and Equipment.	Gross Revenue.	Working Expenses.	Net Earnings.	Interest.	Percentage of Working Expenses on Gross Revenue.	Percentage of Net Earnings on Capital Cost.	Passengers carried.	Persons employed at end of year.
	Miles.	£	£	£	£	£	%	%	No. ,000.	No.
1933 ..	28.31	630,657	161,902	116,112	45,790	42,726	71.72	7.26	14,850	291
1934 ..	28.43	634,192	164,320	123,993	40,328	36,376	75.23	6.44	14,942	308
1935 ..	28.41	635,535	164,639	121,883	42,756	39,055	74.03	6.73	14,934	305
1936 ..	28.43	642,409	173,079	127,887	45,192	37,016	73.89	7.03	14,717	304
1937 ..	28.70	663,196	182,067	131,024	51,043	38,598	71.96	7.70	15,304	315

8. *Australia.*—*All Tramways—Summary 1933 to 1937.* The following table gives a summary of the working of all tramway systems in Australia for the years 1933 to 1937 :—

ALL TRAMWAYS—AUSTRALIA—SUMMARY.

Particulars.	1933.	1934.	1935.	1936.	1937.
Mileage open for traffic .. Miles	619.63	622.20	619.07	611.90	613.02
Cost of Construction and Equipment .. £	25,158,793	25,613,720	26,007,499	26,653,530	26,948,714
Cost per mile .. £	41,103	41,166	42,108	43,559	43,961
Gross Revenue .. £	7,180,549	7,176,410	7,398,243	7,567,094	7,735,351
Working Expenses .. £	5,346,454	5,152,686	5,418,648	5,463,600	5,608,633
Net Earnings .. £	1,834,085	2,023,724	1,979,595	2,103,494	2,126,718
Interest .. £	1,268,202	1,204,095	1,166,029	1,135,297	1,102,449
Percentage of Working Expenses on Gross Revenue .. %	74.46	71.80	73.24	72.20	72.51
Percentage of Net Earnings on Capital Cost .. %	7.20	7.90	7.59	7.89	7.89
Tram-miles run .. ,000 miles	86,910	86,757	81,084	81,481	82,295
Gross revenue per tram mile .. d.	21.30	21.33	21.90	22.29	22.56
Working expenses per tram mile .. d.	15.86	15.31	16.04	16.09	16.36
Net earnings per tram mile .. d.	5.44	6.01	5.86	6.20	6.20
Passengers carried .. ,000	641,680	646,161	672,523	688,123	701,941
Passengers carried per tram mile No.	7.93	8.00	8.29	8.45	8.53
Average revenue per passenger journey .. d.	2.69	2.67	2.64	2.64	2.64
Persons employed at end of year No.	16,875	17,066	17,572	17,712	17,864

D. AVIATION.

1. *Historical.*—A short review of the progress of civil aviation in Australia up to the date of foundation of the Department of Civil Aviation was given in Official Year Book No. 16, pp. 334-5.

2. *Foundation of Civil Aviation Administration.*—A brief account of the foundation and objects of this Department will be found in Official Year Book No. 19, p. 299. In 1936 the organization was changed and the responsibility of regulating and controlling Civil Aviation in the Commonwealth was entrusted to a Board, consisting of four members and a secretary. The Chairman is the Controller-General of Civil Aviation, whilst the other three members are the Controller of Operations, the Controller of Ground Organization and the Finance Member. The Board has remained a branch of the Defence Department.

3. *Aerodromes and Landing Grounds.*—On the 30th April, 1938, 256 landing grounds were directly controlled and maintained by the Commonwealth Government for Civil Aviation purposes. These aerodromes and emergency landing grounds are located at intervals over the following approved air routes:—Brisbane-Darwin, 2,028 miles; Adelaide-Darwin, 1,730 miles; Cloncurry-Normanton, 216 miles; Cootamundra-Charleville, 620 miles; Perth-Daly Waters, 2,252 miles (connecting with Brisbane-Darwin service); Ord River-Wyndham, 154 miles; Perth-Adelaide, 1,453 miles; Adelaide-Melbourne, 410 miles; Adelaide-Sydney (via Mildura and Cootamundra), 737 miles; Melbourne-Sydney, 455 miles; Melbourne-Hobart, 413 miles; Sydney-Brisbane, 475 miles; Brisbane-Cooktown, 1,006 miles.

A direct north-south route through Central Australia has been added to the list of trunk air routes maintained by the Civil Aviation Board. The preparation of this route necessitated the establishment of a number of emergency landing grounds and the improvement of existing aerodromes.

The construction of aerodromes at Cairns and Cooktown has been completed and these grounds are now being used as stopping places on the Sydney-Rabaul Air Service which was inaugurated on 30th May, 1938.

During the last year, several aerodromes on the Inter-Capital Air Routes were equipped for night flying. The equipment generally consists of rotating and identification beacons, boundary and obstruction lighting, together with floodlights or flares for landing. On 30th April, 1938, night flying facilities were available at the following aerodromes:—Archerfield (Brisbane), Evans Head, Coff's Harbour, Kempsey, Mascot (Sydney),

Goulburn, Holbrook, Cootamundra, Canberra, Essendon (Melbourne), Parafield (Adelaide), Maylands (Perth), and Darwin. The Cloncurry-Longreach section of the Brisbane-Darwin route and the Kalgoorlie-Cook section of the Perth-Adelaide route are also equipped for night flying.

Aerodrome lighting installations are nearing completion at Benalla (Victoria), Cambridge (Hobart) and Western Junction (Launceston). Airway rotating beacons are also being installed at intermediate points along the main air routes. These lights are visible up to 50 miles under conditions of good visibility and are a useful aid to air navigation.

Considerable activity has been displayed in the establishment of aerodromes by local authorities and private individuals, and at the 30th April, 1938, 211 aerodromes had been licensed by the Civil Aviation Board. The Board, in pursuance of its policy, provides technical advice to local authorities desirous of establishing landing grounds and this service has been largely availed of during the year. The total number of recognized landing grounds in Australia and New Guinea on the 30th April, 1938, was 460.

4. General Flying Activities, 1937.—The mileage flown by all civil aircraft in Australia and New Guinea in 1937 was approximately 11,007,380 and there were thirteen fatal accidents. During 1937, 2,535,429 miles were flown by the subsidized air services without injuries to passengers or crews. There were four fatal accidents on other regular services which flew 4,269,488 miles.

5. Air Services.—(i) *General.* Since the year 1920 the grant of financial assistance for the establishment and maintenance of regular air transport services has been part of the Government's policy for the development of civil aviation in Australia.

At the 30th April, 1938, nine subsidized contractors were operating under contracts which provided that such space as is required on each trip must be reserved for mails. On letters within the Commonwealth there is an air mail fee of 3d. per $\frac{1}{2}$ ounce in addition to the ordinary postage rate, and for letters to the United Kingdom the inclusive postage to 5th July, 1938, was 1s. 6d. per $\frac{1}{2}$ ounce. (See below). The total route mileage of these services is 11,866 miles.

The principal service is that from Brisbane to Darwin, and thence through Netherlands East Indies to Singapore, where a junction is made with Imperial Airways Ltd., which maintains regular air communication with the United Kingdom. In consequence of the growth of passenger and mail traffic over this route the Government decided to increase the frequency of the service to twice weekly as from May, 1936, and similarly to branch lines Daly Waters-Perth and Charleville-Cootamundra. The importation of high speed modern American aircraft during the year 1937 also led to increased frequency of services between the mainland and Tasmania and to the triplication of the Adelaide-Perth service. The employment of Douglas aircraft on the latter route has enabled journeys between the two capitals to be effected comfortably in one day.

During the past year the following notable additions to Australia's network of air services have been made: Adelaide-Darwin (through Central Australia) and Adelaide-Sydney by Guinea Airways Ltd. with Lockheed aircraft; Adelaide-Melbourne and Melbourne-Sydney by Australian National Airways Pty. Ltd. with Douglas aircraft; Adelaide-Mildura-Narrandera, Melbourne-Mildura-Broken Hill, and Melbourne-Narrandera-Sydney by Ansett Airways Ltd. with Lockheed aircraft; and Sydney-Brisbane by Airlines of Australia Ltd. with Douglas aircraft.

After protracted negotiations between the United Kingdom and the Commonwealth Governments agreement was eventually reached in regard to the Empire Air Mail Scheme. Briefly, the scheme provides for the carriage of first class mails between Great Britain and the Dominions by large flying boats, but the Commonwealth Government stipulated that only surcharged mail shall be dispatched from Australia by the service. The Commonwealth Government controls the section from Singapore to Sydney (the Australian terminus) which is operated by Qantas Empire Airways Ltd., under contract to the Commonwealth Government. The Australian section of the service was inaugurated on 5th July, 1938, with a frequency of three weekly in each direction. The route south from Darwin is overland to Groote Eylandt in the Gulf of Carpentaria, thence to Karumba (near Normanton), across country to Townsville and thence along

the eastern coast to Sydney. The previous inclusive rate of 1s. 6d. per $\frac{1}{2}$ ounce was reduced to 5d. per $\frac{1}{2}$ ounce for outward mail.

All pilots and mechanics employed on the regular subsidized air transport services must join the Air Force Reserve when called upon.

(ii) *Regular Air Services at 30th April, 1938.* These services are of three categories :—(a) subsidized services carrying passengers, mails and freight; (b) unsubsidized services carrying mails (under agreement with the Postmaster-General's Department), passengers and freight; and (c) unsubsidized services carrying passengers and freight.

The aggregate route mileage of all operating companies is 25,712, whilst the total distance of routes over which regular services operate is 20,536. The difference between these two totals is explained by the fact that over some routes more than one company maintains a regular service, as, for instance, along the Queensland coast. The weekly mileage of all regular services is 172,861. The air routes are shown on the map herein.

The latter figure will be considerably augmented during 1938 with the inauguration on 30th May, 1938, of the Australian-New Guinea Air Service (2,522 miles), and by other services likely to be established. The frequencies of the following services vary from once weekly to twice daily.

(a) *Subsidized Services.*—Qantas Empire Airways Ltd.—Brisbane-Darwin-Singapore, 4,361 miles; Cloncurry-Normanton, 216 miles. MacRobertson-Miller Aviation Co. Ltd.—Perth-Daly Waters, 2,252 miles; Ord River-Wyndham, 154 miles; Adelaide-Whyalla, 150 miles. Butler Air Transport Co.—Cootamundra-Charleville, 629 miles. Australian National Airways Pty. Ltd.—Melbourne-Launceston (non-stop), 314 miles; Launceston-Hobart, 94 miles; Melbourne-King Island-Launceston, 306 miles; Launceston-Flinders Island, 109 miles; Perth-Adelaide, 1,453 miles. Aircrafts Pty. Ltd.—Brisbane-Cracow, 250 miles. Airlines of Australia Ltd.—Rockhampton-Mount Coolon, 330 miles. Adastra Airways Ltd.—Sydney-Bega, 205 miles. Airlines (W.A.) Ltd.—Perth-Wiluna-Kalgoorlie, 813 miles. North Queensland Airways Pty. Ltd.—Normanton-Burketown, 100 miles.

(b) *Unsubsidized (Mail) Services.* Australian National Airways Pty. Ltd.—Melbourne-Sydney (via Wagga and via Canberra) 478 miles; Melbourne-Mildura-Broken Hill, 460 miles; Melbourne-Adelaide (via Mount Gambier and via Narracoorte) 473 miles; Melbourne-Sydney, 455 miles; Adelaide-Broken Hill-Mildura-Adelaide, 638 miles; Adelaide-Renmark-Broken Hill, 287 miles; Adelaide-Cowell-Port Lincoln-Adelaide, 372 miles; Adelaide-Kangaroo Island, 95 miles; Adelaide-Melbourne, 410 miles. Aircrafts Pty. Ltd.—Brisbane-Rockhampton-Monto-Brisbane, 719 miles; Brisbane-Kingaroy, 90 miles. Airlines of Australia Ltd.—Brisbane-Townsville, 725 miles; Townsville-Cairns, 174 miles; Sydney-Brisbane, 475 miles. Ansett Airways Ltd.—Melbourne-Narrandera-Sydney, 500 miles; Melbourne-Mildura-Broken Hill, 460 miles; Melbourne-Hamilton, 160 miles; Adelaide-Mildura-Narrandera, 460 miles. Guinea Airways Ltd.—Adelaide-Darwin, 1,730 miles; Adelaide-Sydney (via Mildura and Cootamundra), 737 miles. MacRobertson-Miller Aviation Co. Ltd.—Whyalla-Iron Knob, 35 miles. North Queensland Airways Pty. Ltd.—Cairns-Normanton, 350 miles; Cairns-Townsville, 174 miles; Cairns-Cooktown, 100 miles; Brisbane-Cairns, 899 miles. North Western Airlines Ltd.—Sydney-Moree, 330 miles. Victorian and Interstate Airways Pty. Ltd.—Melbourne-Hay, 233 miles.

(c) *Unsubsidized Services.* Adastra Airways Ltd.—Sydney-Bega, 205 miles. Ansett Airways Ltd.—Melbourne-Sydney (direct) 455 miles. North Queensland Airways Pty. Ltd.—Cairns-Portland Road, 380 miles; Townsville-Mount Isa, 537 miles. Qantas Empire Airways Ltd.—Longreach-Charleville, 267 miles.

(d) *Air Ambulance Services.* The first air ambulance service in Australia was established in 1928 when an arrangement was entered into between the Queensland and Northern Territory Aerial Services Ltd. (now Qantas Empire Airways Ltd.) and the Australian Inland Mission. The company provides the aircraft and pilot, and the mission authorities provide the doctor. The base of operations is Cloncurry whence flights are made as required into Western and Northern Queensland. The scheme has continued

to prove most successful, and many instances are recorded of lives being saved by the services thus made available. A notable feature in this work is the part played by wireless communication, consequent on the introduction of pedal transceivers. The power for these small wireless units is supplied by a dynamo operated by bicycle pedals, and morse messages may be sent out by manipulating an automatic keyboard transmitter like a typewriter. Up to about 200 miles, however, telephony may be used. By this means settlers in outlying districts may call the "flying doctor" and obtain his advice or, if necessary, request the air ambulance.

The "flying doctor" scheme has been extended to Western Australia. From the Wyndham base the service is maintained by the MacRobertson-Miller Aviation Co., which employs a D.H.83 aircraft specially fitted for ambulance work. This aircraft is employed on the regular Ord River-Wyndham air service, and is available for Australian Aerial Medical Service as required. The Victorian Section of the Australian Aerial Medical Service, with the aid of a small Commonwealth monetary grant, provides a doctor and bears the cost of flying operations in this district. A further air ambulance is also available at Port Hedland, Western Australia, under the joint management of the MacRobertson-Miller Aviation Company and the Western Australian section of the Australian Aerial Medical Service. At Kalgoorlie similar work is undertaken by a local aircraft owner.

An air ambulance service has also been established at Broken Hill under the control of the New South Wales and South Australian section of Australian Aerial Medical Service. The aircraft employed is a D.H.83 (Fox Moth) which, together with pilot, is provided by Australian National Airways Pty. Ltd.

The outback districts of North Australia also have the benefit of a "flying doctor", as the Commonwealth Medical Officer at Katherine is a licensed pilot, and, by arrangement with the Government, he uses his aeroplane to visit patients at distant isolated centres.

The Commonwealth Government recognizes the national importance and the incalculable benefits to "outback" settlers of this form of medical aid, and has decided to make available an annual grant of £5,000 towards the maintenance and extension of air ambulance services. The allocation of this money is made upon the recommendations of a committee representing the Health, the Postmaster-General's and the Civil Aviation Administrations.

6. Gliding.—Activities are carried out in various centres of the Commonwealth, but the sport is confined chiefly to Perth, Melbourne, Hobart and Queensland, where local bodies are assisted in their operations by a small Governmental grant.

7. Meteorological Aids to Aviation.—A comprehensive programme of meteorological services and facilities has been carried out by the Civil Aviation Board in conjunction with the Commonwealth Meteorological Bureau.

Full forecasting services are now established at the main capital city aerodromes, viz.:—Essendon, Canberra, Mascot, Archerfield, Parafield, Maylands, Western Junction and Cambridge. With the establishment of secondary stations at Kempsey, Nhill, Ceduna and Kalgoorlie, the organization for the Inter-Capital services will be completed.

The Empire Flying Boat Service will be catered for with first class stations which have been established at Darwin and Townsville, in addition to those at Brisbane and Sydney, and intermediate stations which will make upper air and general observations and issue short distance forecasts. These latter have been established at Groote Eylandt and Karumba on the Gulf of Carpentaria and Bowen and Gladstone on the East Coast. The stations on the eastern seaboard of Australia will also serve the New Guinea route, and the establishment of a first class station at Port Moresby with secondary stations at Cooktown and Salamaua has completed the meteorological organization for this section of the Commonwealth air services.

In view of the establishment of a Flying Boat service to New Zealand in the near future, further upper air and observing stations will be established at Lord Howe and Norfolk Islands and arrangements have been made for two observers to be stationed on board ships which regularly cross the Tasman Sea. In this manner very valuable information will be obtained before the inauguration of the New Zealand Service.

The establishment of further stations will be dependent on the re-organization of the internal air services following the inauguration of the Empire Flying Boat Service, but it has been decided to provide a first class station at Broome, together with such intermediate stations as may be found necessary for the route from Perth to Darwin, and an intermediate station at Alice Springs for the route from Adelaide to Perth.

Forecasts over the whole of each air route section will be given by meteorological officers when required. In general, these will be based on the 9 a.m. and 3 p.m. observations taken throughout the Commonwealth, with the addition of observations at other hours from specially selected stations lying on, and in the vicinity of, the various air routes.

Operation of aeronautical radio stations over the whole of the air routes concerned will provide means for rapid transmission of all meteorological observations.

8. **Wireless.**—As outlined in the previous issue of the Year Book, a comprehensive radio organization providing navigational aids for, and two-way communication with aircraft had been approved. This organization will shortly be placed in operation, but pending its establishment a temporary service has been provided. Aeronautical radio stations are in operation at Brisbane, Sydney, Canberra, Albury, Melbourne, Launceston, Adelaide, Forrest, Perth and Darwin. These stations are all equipped with Direction Finding facilities which, on the completion of the permanent organization, will be replaced, except at Forrest, Perth and Darwin, with Ultra High Frequency Radio Range Beacon Stations. The establishment of temporary radio aids for air navigation at Townsville, Rockhampton and Rabaul (Territory of New Guinea) has been approved, and will commence service with the inauguration of the Sydney-Rabaul Air Service on the 30th May.

Permanent aeronautical radio communication stations at Cooktown, Port Moresby and Salamaua have been provided for the Sydney-Rabaul air service. Other permanent radio stations at Cloncurry, Brisbane, Kempsey, Sydney, Canberra, Holbrook, Melbourne, Launceston, Hobart, Nhil, Adelaide, Ceduna, Forrest, Kalgoorlie, Perth, Groote Eylandt and Karumba are in various stages of completion and should be available for service within the next six months. The establishment of permanent stations at Darwin, Townsville and Rockhampton has been approved. These stations, together with those at Groote Eylandt and Karumba, will provide radio facilities on the Australian section of the Empire Flying Boat Service which will commence in August.

The growth of air traffic at the Brisbane, Sydney, Melbourne and Adelaide aerodromes during the last twelve months has been beyond that anticipated, and has reached a stage where control by visual signals is not adequate for safety, particularly when controlling aircraft flying in the vicinity of these aerodromes during conditions of bad visibility. It has, therefore, been approved that radio aerodrome control equipment be installed at the above capital city aerodromes and this should be in operation by the end of 1938.

9. **Aircraft Parts and Materials.**—The local production of component parts and materials for use in aircraft continues to grow rapidly, and the number of firms authorized by the Civil Aviation Board to issue release notes certifying to the compliance of certain of their products with approved designs or specifications has doubled since the previous issue of the Year Book. Forty firms in all are now issuing release notes in this country. Of this number some 24 are manufacturing locally aircraft components or materials to specifications approved by the Civil Aviation Board, and the remainder are distributors of imported aircraft materials and supplies covered by satisfactory evidence such as a release note issued in the country of origin, that they are in conformity with approved specifications.

10. **Aircraft Maintenance, Certificates of Repair.**—A system has now been established which is designed to ensure that any maintenance or overhaul work done in the specially equipped workshops of outside firms, and not under the direct supervision of the ground engineer in charge of work on the aeroplane as a whole, shall be up to the required standard. A firm having the requisite equipment, staff, and experience may be authorized, after investigation by the Civil Aviation Board, to issue Certificates of Repair which serve as evidence to the Ground Engineer finally responsible that the work so covered has

been done in properly equipped workshops by competent tradesmen, and has been subjected to proper inspection.

Such specialized classes of work as instrument repair and calibration, cylinder regrounding, remetalling and boring of bearings and the overhaul and testing of magnetos, starters, and other electrical equipment are handled by firms issuing Certificates of Repair. Some fifteen firms are at present authorized under this scheme, and their number is continually being augmented.

11. **Aircraft Imports.**—The following table shows the number of aircraft imported into the Commonwealth and Territory of New Guinea during the past five years:—

Year.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38. (To 30th April, 1938.)
Number of aircraft imported	15	48	60	52	51

12. **Training of Air Pilots.**—(i) *The Associated Aero Clubs.* These clubs provide facilities in all States for flying instruction and practice. During the year ended 30th April, 1938, 210 pupils qualified for private ("A") pilot's licences. Many graduates have completed advanced courses of training, gained their commercial ("B") licences, and now own aircraft. Other pupils have qualified as instructors.

The Commonwealth Government grants assistance to the clubs by providing hangar accommodation, the free use of aerodromes, suitable club houses which are leased to the clubs, and bonuses for each pupil trained to a standard that will enable him to obtain a private ("A") pilot's licence. Bonuses are also paid to the clubs in respect of the renewal of pilot's licences of club members, and each club receives a maintenance grant and an establishment grant conditional on a prescribed number of aircraft being maintained in an airworthy condition and a prescribed amount of flying being performed each year. Included in the aircraft fleets of the several clubs are a number of D.H.60 ("Moth") machines, which were originally loaned by the Commonwealth Government but have now been handed over to the clubs.

Originally instruction was confined to the capital cities, but operations have now been extended by the clubs to a certain number of provincial centres where aircraft and instructors are made available as required.

Aviation pageants are held from time to time by the various Aero Clubs, both at their base cities and at country centres, and have had a valuable educative effect in stimulating interest in aviation.

(ii) *Other Organizations.* Flying training is also carried out intermittently by companies, clubs, or private owners at various centres throughout the Commonwealth. These do not receive Government subsidy.

During the year ended 30th April, 1938, 122 pupils graduated for ("A") pilot's licences, making a total of 332 pilots from all training organizations.

13. **Notable Flights.**—Many notable long distance flights have been carried out by Australian pilots. Short accounts of those prior to the year under review are contained in previous issues of the Year Book.

Record-breaking flights between Australia and England were again in evidence. In April, 1937, Mr. H. F. Broadbent made a solo flight from Australia to England in a D.H.85 aircraft in six days eight hours. In October, Miss Jean Batten in a Percival Gull aeroplane improved on this performance by completing the journey in five days nineteen hours, whilst in April, 1938, Mr. Broadbent regained the record by reducing the time to five days four hours. During the previous month this aviator practically established another record, this time in the opposite direction, when four and a half days after departure from England he was forced down on Flores Island in Netherlands East Indies.

An epochal flight in March, 1938, was that of Flying Officer A. E. Clouston and Mr. V. A. Richetts, who in a D.H. "Comet" aeroplane flew from England to New Zealand and back in ten days twenty hours, covering a distance of about 28,000 miles. Many

records were established during their flight, some being: England-Darwin, two days twelve hours; Darwin-Sydney, twelve hours thirty-seven minutes; England-Sydney, three days eight hours fifty-six minutes; Sydney-New Zealand, seven hours thirteen minutes; England-New Zealand, four days eight hours.

14. **Statistical Summary.**—The collection and compilation of aircraft statistics were undertaken by the Commonwealth Bureau of Census and Statistics on the 1st July, 1922. The subjoined table gives a summary of operations for the years ended 30th June, 1933 to 1937:—

CIVIL AVIATION.—AUSTRALIA.—SUMMARY.

Particulars.	Year ended 30th June—				
	1933.	1934.	1935.	1936.	1937.
Registered Aircraft Owners					
(a) No.	115	114	123	124	102
Registered Aircraft (a) No.	197	188	208	228	214
Licensed Pilots—(a)					
Private .. . No.	370	429	569	714	744
Commercial .. No.	184	201	210	236	265
Licensed Navigators (a) No.	..	..	13	22	29
Licensed Aircraft Radio Telegraph Operators (a) No.	..	..	7	8	9
Licensed Aircraft Radio Telephone Operators (a) No.	..	..	..	7	4
Licensed Ground Engineers (a) .. . No.	272	261	297	295	346
Aerodromes—(a)					
Government .. . No.	59	64	65	63	72
Public .. . No.	114	126	146	171	183
Government Emergency Grounds. .. . No.	119	135	138	148	151
Hours flown .. . No.	31,883	35,487	45,693	62,479	84,010
Approx. Mileage .. Miles	2,587,389	3,061,449	3,854,424	5,819,751	8,731,612
Passengers carried—					
Paying .. . No.	58,155	54,119	45,540	60,476	85,574
Non-paying .. . No.	12,949	10,117	11,743	14,643	16,590
Total .. . No.	71,104	64,236	57,283	75,119	102,164
Goods, weight carried (b) lb.	244,258	296,983	249,415	442,407	822,724
Mails, weight carried lb.	36,212	43,627	67,908	121,187	167,601
Accidents—					
Persons killed .. . No.	5	10	28	20	19
Persons injured .. . No.	6	12	10	6	14

(a) At 30th June. (b) Prior to 1935 stage freight has been included in some instances in South Australia and Western Australia.

Separate particulars of flying over the Darwin-Singapore Section of the Imperial Airways route, also included in the above table, are shown below:—

Particulars.	Year ended 30th June—		
	1935.(a)	1936.	1937.
Hours flown No.	1,186	2,159	3,767
Miles flown No.	140,700	290,542	494,105
Passengers carried No.	49	177	351
Goods, weight carried lb.	1,019	8,564	17,582
Mails, weight carried lb.	24,828	69,436	89,647

(a) December, 1934 to June, 1935.

Preliminary figures relating to the Operations of Civil Aircraft in Australia during the year 1937-38 will be found in the Appendix to this volume.

15. **New Guinea Activities.**—The discovery of gold in New Guinea in 1927 resulted in considerable aviation activity in the vicinity of the gold-fields, which, by ground route, are situated about 70 miles inland from Salamaua, on the north-east coast of the mainland of New Guinea. The value of aircraft as a means of transporting food and stores to the field and of bringing the gold to the seaboard is shown by the fact that, whereas aircraft cover the distance in less than one hour, the nature of the intervening country is such that a journey by other means occupies more than a week. Specially constructed freight machines are employed for the transportation of dredging machinery and other heavy material to the Bulolo fields. Horses, cattle, motor cars, building material and various kinds of heavy freight are continually being carried inland from the coast in aircraft, and such activity constitutes one of the most notable feats of transport in the history of aviation. Inward mails are carried by Guinea Airways Ltd., under arrangements with the Postmaster-General's Department, from Port Moresby to Wau, Lae and Bulolo. Mails, official passengers and cargo are carried by Mandated Airlines Ltd. under contract with the New Guinea Administration between Salamaua and Wau, Salamaua and Bulolo, Salamaua and Otiabanda, Wau and Otiabanda, and from Salamaua and Wau to Port Moresby in Papua. Stephen's Aviation Ltd. are also under contract with the Administration to carry mails, official passengers and cargo from Madang to Upper Ramu, Madang and Upper Ramu to Chimbu, and Wau to Bulolo. The air mail fee is 1½d. per ounce in addition to the ordinary postage, plus 3d. per half-ounce (air mail surcharge) if an Australian air service is also used. The Companies and persons operating in New Guinea are:—Guinea Airways Ltd.; Mandated Airlines Ltd.; Parers Air Transport Coy.; Bulolo Gold Dredging Ltd.; Stephen's Aviation Ltd.; Lutheran Mission, Finschhafen; and the Catholic Mission, Alexishafen. The subjoined table gives a summary of operations for the years ended 30th June, 1933 to 1937.

CIVIL AVIATION.—TERRITORY OF NEW GUINEA.—SUMMARY.

Year ended 30th June—

Particulars.	1933.	1934.	1935.	1936.	1937.
Registered Aircraft Owners					
(a) No.	5	10	9	12	9
Registered Aircraft (a) No.	19	26	25	38	34
Licensed Pilots—(a)					
Private No.	1	4	3	5	4
Commercial .. No.	21	24	27	27	22
Licensed Navigators (a) No.	..	..	1	1	..
Licensed Ground Engineers					
(a) No.	30	37	42	41	36
Aerodromes—(a)					
Government .. No.	2	3	3	15	18
Public No.	..	3	5	15	19
Government Emergency					
Landing Grounds No.	3	15	3	6	8
Hours flown No.	8,499	10,061	13,022	18,114	16,371
Approximate mileage Miles	680,871	811,440	1,094,308	1,486,983	1,466,355
Passengers carried—					
Paying No.	6,948	10,799	14,200	15,943	11,718
Non-paying .. No.	93	209	203	616	1,382
Total No.	7,041	11,008	14,403	16,559	13,100
Goods, weight carried lb.	10,982,936	14,985,723	17,447,746	21,883,413	24,441,860
Mails, weight carried lb.	47,097	90,046	97,880	128,082	122,063
Accidents—					
Persons killed .. No.	2	..	2	1	..
Persons injured .. No.	..	1	3	..	..

(a) At 30th June.

Preliminary figures relating to the Operations of Civil Aircraft in New Guinea during the year 1937-38 will be found in the Appendix to this volume.

E. MOTOR VEHICLES.

1. *The Motor Car and Motor Industry.*—(i) *Evolution of the Motor Car.* In the issue of the Year Book for 1927 (No 20, p. 319) a short history of the evolution of the motor car is given.

(ii) *Motor Industry.* Although motor cars are not entirely manufactured in Australia, the capital invested in assembling and body building plants is considerable. The importance of the industry is shown by the figures relating to local manufacture of motor bodies and imports of motor cars and fuel which are given in the following table for the years 1932–33 to 1936–37:—

MOTOR BODIES BUILT, AND BODIES, CHASSIS AND FUELS IMPORTED—
AUSTRALIA.

Particulars.		1932–33.	1933–34.	1934–35.	1935–36.	1936–37.
Motor bodies built in Australia ..	No.	13,532	26,302	45,445	67,337	
	Value £	1,100,504	2,112,439	4,180,586	6,043,735	
Motor bodies imported ..	No.	108	1,116	2,215	1,609	786
	Value £	12,233	86,890	179,558	149,593	81,386
Chassis imported ..	No.	15,776	32,924	53,975	75,652	69,915
	Value £	1,306,830	2,528,969	4,096,760	5,507,957	5,458,640
Fuels imported—						
Crude petroleum ..	Million gallons	58	58	55	65	60
	Value £	486,302	488,341	460,781	539,693	520,517
Petroleum spirit, etc. ..	Million gallons	181	208	212	255	282
	Value £	3,218,209	2,852,649	2,706,474	3,792,950	4,525,939

The value of the tyres both locally produced and imported, for which figures are, however, not available, must also be taken into consideration, particularly as the prevailing practice is for distributors to retail cars on a five-tyre basis. Spares, batteries, accessories, etc., are additional items for which there is a wide market in Australia.

2. *Registration.*—The arrangements for the registration of motor vehicles and the licensing of drivers and riders thereof are not uniform throughout Australia. Methods of registration, licence fees payable, etc., in each State were referred to in Official Year Book No. 16, pp. 337–340, and later issues up to No. 25.

3. *Public Vehicles.*—In all the capital cities of the States and in many of the most important provincial centres taxi-cabs and other vehicles ply for hire under licence granted either by the Commissioner of Police or the Local Government authority concerned. As most of these vehicles are independently controlled by individuals or small companies, it has not been possible to obtain complete data in respect of their operations.

4. *Motor Omnibuses.*—Motor omnibus traffic, both in urban and provincial centres, has assumed considerable proportions during recent years, and prior to the constitution of Boards empowered to allocate routes over which omnibuses may operate, had a very marked effect on railway and tramway services. The regulation of traffic of motor vehicles has arisen from the belief that the economic waste arising from duplication of services parallel with or contiguous to existing railway and tramway systems is thus avoided. The general principle governing the allocation of routes is that omnibus services should act as feeders to existing transport utilities. Revenue from licence fees is devoted principally to the maintenance or construction of roadways to enable them to withstand the wear and tear caused by the heavy traffic. In some States the various railway and tramway systems have motor services complementary to their main services. Such services are conducted in New South Wales by the Department of Road Transport and Tramways, in Victoria by the Victorian Railways Commissioners, in South Australia by the South Australian Railways Commissioners and by the Municipal Tramways

Trust, Adelaide, and in Tasmania by the Municipality of Hobart. In most instances the omnibus service has been provided to meet the competition of private enterprise and to endeavour to protect the existing transport utilities provided by public bodies.

5. **Motor Vehicles on the Register, etc.**—(i) Year 1936-37. Particulars of the registration of motor vehicles, etc., for the year 1936-37 are contained in the subjoined table:—

MOTOR VEHICLES.—SUMMARY, 1936-37.

State or Territory		Motor Vehicles Registered at 30th June, 1937. (a)					Drivers' and Riders' Licences in force at 30th June, 1937.	Gross Revenue derived from—			
		Motor Cars. (b)	Com- mercial Vehicles (c)	Motor Cycles.	Total.	Per 1,000 of Population at 30th June, 1937.		Vehicle Registrations and Motor Tax.	Drivers' and Riders', etc., Licences.	Other Sources.	Total.
No.	No.	No.	No.	No.	No.	£	£	£	£		
New South Wales ..	190,963	66,244	23,429	280,646	104.23	395,523	2,090,172	203,804	80,576	2,374,642	
Victoria ..	137,985	46,025	26,662	233,573	125.87	313,826	1,388,912	79,499	39,712	1,707,923	
Queensland ..	68,857	34,292	8,040	111,705	112.06	139,050	663,083	55,132	50,185	776,400	
South Australia ..	50,633	19,209	9,097	78,939	134.11	135,320	569,244	72,039	9,632	650,915	
Western Australia ..	34,180	19,919	6,977	61,076	134.40	77,317	367,452	23,516	21,742	413,740	
Tasmania ..	15,089	4,012	3,573	22,674	97.61	26,538	120,092	13,269	10,744	144,105	
Northern Territory ..	336	704	41	1,081	198.20	989	1,409	406	..	1,815	
Australian Capital Territory	1,346	315	82	1,743	169.62	2,404	10,918	1,329	80	12,327	
Australia ..	499,289	214,296	77,912	791,497	115.86	1,092,973	5,413,282	448,914	218,671	6,080,867	

(a) Exclusive of Trailers (12,528), Road Tractors, etc. (1,348), and Dealers' Plates (4,257). (b) Includes Taxis and Hire Cars. (c) Includes Lorries, Vans, Buses and Utility Trucks. (d) Includes 36,904 vehicles registered as Primary Producers'.

Particulars relating to the numbers of Motor Vehicles Registered at 30th June, 1938, will be found in the Appendix to this volume.

(ii) *Quinquennium* 1933-1937. The following table shows the number of vehicles registered, licences issued, and revenue received therefrom during each of the years 1932-33 to 1936-37:—

MOTOR VEHICLES.—REGISTRATIONS, ETC., AUSTRALIA.

Year.	Motor Vehicles Registered at 30th June.				Drivers' and Riders' Licences in force at 30th June.	(b) Revenue derived from—			
	Motor Cars.	Commercial Vehicles.	Motor Cycles.	Total.		Vehicle Registrations and Motor Tax.	Drivers' and Riders', etc., Licences.	Other Sources.	Total.
	No.	No.	No.	No.	No.	£	£	£	£
1932-33	438,499	105,837	72,896	617,232	93.1	760,973	3,847,934	303,999	4,151,843
1933-34	455,199	116,341	73,104	644,644	96.6	863,982	4,154,331	341,685	4,603,096
1934-35	457,084	135,721	75,945	668,750	102.4	910,218	4,507,931	363,134	4,871,143
1935-36	484,832	180,597	77,407	742,836	109.0	979,343	5,017,888	380,122	5,398,012
1936-37	499,289	214,296	77,912	791,497	115.9	1,092,973	5,413,282	448,914	6,080,867

(a) Incomplete. Queensland commercial vehicles included with motor cars. (b) Prior to the year 1933-34 the figures purporting to show the revenue collected were not uniform throughout the States. (c) Includes Primary Producers' Vehicles.

(iii) *Relation to Population.* The table hereunder gives the number of vehicles (exclusive of motor cycles) registered per 1,000 of population at 30th June, in each State for each of the years 1921 and 1933 to 1937 :—

MOTOR VEHICLES (EXCLUSIVE OF MOTOR CYCLES) REGISTERED PER 1,000 OF POPULATION.

Year.	New South Wales.	Vic-toria.	Queens-land.	South Aus-tralia.	Western Aus-tralia.	Tas-mania.	North-ern Territory.	Aus-tralian Capital Territory.	Aus-tralia.
31st Dec., 1921	15	16	8	24	12	13	(a)	(a)	15
30th June, 1933	77	86	86	88	92	62	131	135	82
" 1934	78	90	89	99	97	65	129	143	86
" 1935	83	97	96	98	105	70	95	148	91
" 1936	89	105	102	110	110	77	185	160	98
" 1937	96	112	105	119	119	82	191	162	104

(a) Not available.

6. **New Vehicles Registered.**—(i) *Year 1936-37.* The following table shows particulars of new vehicles registered in the various States during the year 1936-37 :—

MOTOR VEHICLES.—NEW VEHICLES REGISTERED, 1936-37.

State or Territory.	Motor Cars.	Commercial Vehicles, etc.	Motor Cycles.	Total.
New South Wales	21,116	9,064	2,091	32,271
Victoria	13,292	(c) 7,948	2,923	24,163
Queensland	5,580	3,966	894	10,440
South Australia (a)	4,909	1,947	870	7,726
Western Australia (b)	1,924	602	411	2,937
Tasmania	1,572	620	281	2,473
Australian Capital Territory	194	44	9	247
Total	48,587	24,191	7,479	80,257

(a) Excludes Northern Territory. (b) Metropolitan Area only. (c) Includes vehicles registered as Primary Producers'. Particulars of New Vehicles Registered during 1937-38 will be found in the Appendix to this volume.

(ii) *Quinquennium, 1933-1937.* Particulars of new vehicles registered in Australia during the years 1932-33 to 1936-37 appear in the following table :—

MOTOR VEHICLES.—NEW VEHICLES REGISTERED, AUSTRALIA. (a)

Year.	Motor Cars.	Commercial Vehicles, etc.	Motor Cycles.	Total.
1932-33	14,024	3,366	2,639	20,029
1933-34	22,522	6,589	3,936	33,047
1934-35	36,934	10,334	5,249	52,517
1935-36	52,383	18,648	6,673	77,704
1936-37	48,587	24,191	7,479	80,257

(a) Excludes Northern Territory and extra-Metropolitan Area of Western Australia; also Australian Capital Territory prior to 1935-36. The figures relating to the earlier years are approximate only, as complete particulars are not available.

8. Traffic Accidents.—(i) Year 1936-37. The table hereunder gives particulars of the numbers of persons killed and injured in accidents (known to the Police), which occurred in public thoroughfares during the year 1936-37 :—

ACCIDENTS (KNOWN TO THE POLICE) WHICH OCCURRED IN PUBLIC THOROUGHFARES.—PERSONS KILLED AND INJURED, 1936-37.

State or Territory.	Persons Killed.			Persons Injured.		
	Total.	Per 1,000 of Mean Population	Per 100 Motor Vehicles Registered	Total.	Per 1,000 of Mean Population	Per 100 Motor Vehicles Registered
New South Wales ..	543	0.20	0.19	7,684	2.87	2.74
Victoria ..	430	0.23	0.18	6,940	3.75	2.98
Queensland ..	135	0.14	0.12	3,195	3.25	2.86
South Australia ..	103	0.18	0.13	3,125	5.31	3.96
Western Australia ..	123	0.27	0.20	924	2.04	1.51
Tasmania ..	51	0.22	0.22	1,045	4.51	4.61
Australian Capital Territory	2	0.20	0.11	18	1.80	1.03
Total ..	1,387	0.20	0.18	22,940	3.37	2.90

Figures in respect of accidents registered are not entirely comparable throughout the Commonwealth, as some States, like New South Wales, have not enforced the reporting of minor accidents, while others, like Victoria, require that all accidents should be reported. Because of this, particulars relating to persons injured are approximate only.

(ii) Years 1926-27 to 1936-37. Approximate figures relating to the persons killed and injured in traffic accidents in Australia during the years 1926-27 to 1936-37 are given hereunder :—

ACCIDENTS (KNOWN TO THE POLICE) WHICH OCCURRED IN PUBLIC THOROUGHFARES—PERSONS KILLED AND INJURED, AUSTRALIA.

Particulars.	Year ended 30th June (a)—										
	1927.	1928.	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.
Persons killed No.	913	1,003	1,145	1,051	916	848	914	952	1,100	1,350	1,387
Persons injured No.	13,509	15,745	17,314	16,385	14,297	13,728	15,073	18,039	19,189	22,131	22,940

(a) Prior to 1935 figures were compiled by three States for the calendar year, and by one State for the years 1935 and 1936.

Particulars of Traffic Accidents appear in greater detail in Transport and Communication Bulletin No. 28.

(iv) Revenue per Motor Vehicle. The following table gives the approximate average revenue per vehicle (exclusive of motor cycles) received in respect of registration and motor tax in the several States for each year from 1932-33 to 1936-37. In some States the revenue from motor tax on cycles is not separately recorded. In these cases the flat rate provided for cycles in the registration acts has been applied, and the average amounts shown must therefore be regarded as approximate only.

AVERAGE REVENUE PER VEHICLE FROM REGISTRATION FEES AND MOTOR TAX (EXCLUSIVE OF MOTOR CYCLES).

State or Territory.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
New South Wales	6 16 5	7 6 5	7 11 0	7 14 2	7 16 0
Victoria	6 17 8	7 0 2	7 3 5	7 5 11	7 5 10
Queensland	5 17 3	6 1 3	5 18 8	6 0 8	6 3 0
South Australia	8 13 1	7 19 2	8 11 11	8 8 6	(b) 7 14 0
Western Australia	6 3 4	6 4 10	5 17 5	5 16 11	6 11 5
Tasmania	5 14 3	5 14 3	5 15 0	5 14 3	5 13 0
Northern Territory	(a) 1 0 0	(a) 1 0 0	(a) 1 0 0	1 5 0	1 7 0
Australian Capital Territory ..	5 4 2	5 3 9	5 12 1	5 12 2	6 6 0
Australia	6 15 7	6 19 6	7 2 2	7 4 0	7 4 9

(a) Estimated. (b) Decrease as compared with figures for 1935-36 largely due to the introduction during the year of a change in the method of registering, which enabled persons to register vehicles for six-monthly periods, instead of annually only, as before.

7. **World Motor Vehicle Statistics, 1938.** The result of the 1938 World Motor Census, conducted by the "American Automobile" magazine, from which the following particulars have been extracted, shows that there were 42,446,814 motor cars, trucks, and buses registered in various countries of the world at 1st January, 1938. This shows an increase of 6.0 per cent. on the figure for the previous year, 40,045,502, and is the highest figure yet attained.

The following table shows the numbers of motor vehicles registered in each continent at 1st January, 1938 :—

MOTOR VEHICLES—WORLD REGISTRATIONS AT 1st JANUARY, 1938.

Continent, etc.	Total Automobiles.	Motor Cars.(a)	Motor Trucks and Buses.(a)	Motor Cycles.(a)
Africa	607,284	487,143	119,816	57,214
America (exclusive of United States of America) ..	2,101,756	1,653,469	448,287	21,003
United States of America ..	29,654,847	25,460,397	4,194,450	100,000
Asia	673,623	394,656	278,967	98,441
Europe	8,375,491	5,828,718	2,421,773	2,304,245
Oceania	1,033,813	745,496	287,717	101,945
Total	42,446,814	34,569,879	7,751,010	2,742,848

(a) Not complete for all territories.

The next table gives particulars of the numbers of motor vehicles registered in various countries, together with their approximate populations for the purposes of comparison :—

COMPARATIVE MOTOR VEHICLE STATISTICS, 1st JANUARY, 1938.

Country.	Approximate Population in Millions.	Motor Cars, Trucks and Buses.	Motor Cycles.
Australia	7	732,320	80,000
Argentina	12	267,707	..
Canada	11	1,306,385	11,140
France	42	2,200,000	..
Germany	67	1,445,743	1,327,189
Great Britain	47	2,306,834	462,439
India	353	173,243	12,593
Italy	43	429,700	180,000
Japanese Empire	97	166,000	57,000
New Zealand	2	239,657	21,175
Union of South Africa	8	315,706	31,000
United States of America	126	29,654,847	100,000

The foregoing figures are in some cases approximations based on estimates furnished by Trade Commissioners or representative motor trade organizations in the several countries, and in other cases are incomplete, especially in relation to motor cycles.

F. POSTS, TELEGRAPHS AND TELEPHONES.

§ 1. General.

1. The Commonwealth Postal Department.—In previous issues of the Year Book some account was given of the procedure in connexion with the transfer to the Federal Government of the postal, telegraphic and telephonic facilities of the separate States. (See Year Book No. 15, p. 601.)

Under the provisions of the Commonwealth Post and Telegraph Act, 1901, the Commonwealth Postal Department was placed under the control of a Postmaster-General, being a responsible Minister with Cabinet rank. The Director-General of Posts and Telegraphs controls the Department under the Postmaster-General, whilst the principal officer in each State is the Deputy Director, Posts and Telegraphs.

2. Postal Facilities.—(i) *Relation to Area and Population.* The subjoined statement shows the number of post offices, the area in square miles and the number of inhabitants to each post office (including non-official offices) in each State and in Australia at the 30th June, 1937. In order to judge clearly the relative postal facilities provided in each State, the area of country to each office as well as the number of inhabitants per office should be taken into account. The returns given for South Australia in this and all succeeding tables include those for the Northern Territory, while the returns for the Australian Capital Territory are included in those for New South Wales.

POSTAL FACILITIES.—RELATION TO AREA AND POPULATION,
AT 30th JUNE, 1937.

State.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Australia.
Number of post offices (a) ..	2,595	2,553	1,234	784	604	511	8,191
Number of square miles of territory to each office in State ..	124	34	543	1,153	1,616	51	363
Number of inhabitants to each office	1,079	727	804	758	752	455	834
Number of inhabitants per 100 square miles ..	871	2,112	748	66	47	886	230

(a) Includes "Official," "Semi-Official," and "Non-Official" Offices.

The foregoing table does not include "telephone" offices at which there is no postal business.

(ii) *Number of Offices.* The following table shows the number of post offices in each State from 1907 to 1936-37:—

POST OFFICES—NUMBER.

State.	At 31st December—		At 30th June—					
	1907.		1917.	1927.	1936.		1937.	
	Official and Semi-Official Post Offices.	Non-Official Post Offices. (a)	Official and Semi-Official Post Offices.	Non-Official Post Offices. (a)	Official and Semi-Official Post Offices.	Non-Official Post Offices. (a)	Official and Semi-Official Post Offices.	Non-Official Post Offices. (a)
New South Wales	2,319	480	2,108	456	2,226	429	2,043	431
Victoria ..	2,326	283	2,350	281	2,415	267	2,388	263
Queensland ..	1,389	211	1,117	216	1,069	187	1,029	187
South Australia ..	716	140	690	150	657	143	641	143
Western Australia ..	365	137	481	132	583	126	471	126
Tasmania ..	406	48	433	48	473	42	466	42
Australia ..	7,521	1,304	7,179	1,286	7,453	1,196	6,918	1,198
								6,993

(a) Includes offices previously designated as "Allowance" and "Receiving" Offices.

(iii) *Employees and Mail Contractors.* The number of employees and mail contractors in the Central Office and in each of the States at specified dates is given in the appended table :—

POSTAL EMPLOYEES AND MAIL CONTRACTORS.

State.	At 31st December—		At 30th June—							
	1907.		1917.		1927.		1936.		1937.	
	Employees.	Mail Contractors.	Employees.	Mail Contractors.	Employees.	Mail Contractors.	Employees.	Mail Contractors.	Employees.	Mail Contractors.
Central Office ..	(a)	..	(a)	..	149	..	255	..	292	..
New South Wales ..	6,964	1,072	12,902	1,915	14,214	1,033	14,332	2,371	14,050	2,353
Victoria ..	5,744	758	8,826	1,137	11,607	1,145	10,006	941	11,724	1,434
Queensland ..	3,021	640	4,442	801	5,953	860	5,430	1,280	5,963	1,343
South Australia ..	1,767	261	2,942	352	4,388	402	3,538	363	3,734	302
Western Australia ..	1,579	208	2,093	279	3,061	357	2,059	309	2,982	390
Tasmania ..	814	172	1,313	221	1,555	247	1,480	232	1,537	227
Australia ..	19,889	3,111	33,118	4,705	40,927	4,944	38,887	5,556	41,182	6,109

(a) Included in Victorian Staff.

3. *Gross Revenue, Postmaster-General's Department.—Branches.* The gross revenue (actual collections) in respect of each branch of the Department during each of the last five years is shown in the table hereunder :—

GROSS REVENUE, POSTMASTER-GENERAL'S DEPARTMENT.—BRANCHES.

Branch and Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Postal Branch—	£	£	£	£	£	£	£
1932-33 ..	2,340,889	1,620,972	862,051	462,520	397,253	162,112	5,845,797
1933-34 ..	2,431,342	1,673,812	872,913	462,034	402,083	164,630	6,007,414
1934-35 ..	2,556,985	1,765,381	917,172	469,015	433,302	176,576	6,318,431
1935-36 ..	2,704,976	1,849,667	959,010	503,578	451,703	192,714	6,661,648
1936-37 ..	2,825,606	1,914,730	993,320	520,936	470,799	200,416	6,925,807
Telegraph Branch—	..	..	..	..	..	..	..
1932-33 ..	358,214	251,097	195,328	136,145	112,154	38,885	1,091,823
1933-34 ..	378,656	263,904	202,579	131,086	120,318	40,385	1,136,928
1934-35 ..	432,771	301,898	222,010	118,533	141,103	43,773	1,260,388
1935-36 ..	412,088	311,752	224,507	112,117	141,033	43,553	1,245,772
1936-37 ..	496,504	347,910	229,069	114,536	145,003	36,896	1,370,518
Wireless Branch—	..	..	..	..	..	..	..
1932-33 ..	79,702	77,567	15,728	22,698	8,843	5,596	210,134
1933-34 ..	127,453	118,626	28,169	36,520	17,130	9,229	336,857
1934-35 ..	133,177	110,328	29,429	36,363	19,287	9,509	338,593
1935-36 ..	141,337	117,660	35,082	39,096	21,858	10,844	365,877
1936-37 ..	162,700	136,048	44,045	45,505	27,158	13,591	429,047
Telephone Branch—	..	..	..	..	..	..	..
1932-33 ..	2,092,461	1,595,977	787,597	534,157	301,418	134,228	5,445,838
1933-34 ..	2,202,273	1,647,408	818,081	535,158	308,490	135,662	5,647,972
1934-35 ..	2,300,656	1,740,660	884,147	562,999	328,271	141,785	6,027,518
1935-36 ..	2,582,680	1,891,547	945,929	594,740	356,107	151,344	6,521,747
1936-37 ..	2,824,662	2,066,231	976,316	627,694	395,334	171,008	7,061,245
All Branches—	..	..	..	..	..	..	..
1932-33 ..	4,871,266	3,545,613	1,860,704	1,155,520	819,668	340,821	12,593,502
1933-34 ..	5,139,724	3,703,750	1,922,642	1,165,128	848,021	349,906	13,129,171
1934-35 ..	5,483,580	3,927,267	2,053,258	1,186,010	922,263	371,643	13,944,930
1935-36 ..	5,871,681	4,180,626	2,164,618	1,248,861	974,601	398,057	14,839,044
1936-37 ..	6,309,472	4,464,919	2,242,750	1,308,671	1,038,894	421,911	15,786,617
Total Revenue per head of mean population—	..	..	..	..	..	..	..
1932-33 ..	1.87	1.95	1.08	1.98	1.88	1.50	1.91
1933-34 ..	1.96	2.03	2.02	1.98	1.93	1.53	1.97
1934-35 ..	2.07	2.14	2.14	2.01	2.08	1.62	2.08
1935-36 ..	2.20	2.27	2.23	2.11	2.18	1.73	2.20
1936-37 ..	2.34	2.41	2.28	2.20	2.30	1.82	2.34

Compared with the corresponding figures for the previous year, an increase of 6.4 per cent. is shown in the gross revenue earned, the increases in the several branches being as follows :—Postal 4.0 per cent., Telegraph 6.3 per cent., Wireless 17.3 per cent., and Telephone 8.3 per cent.

4. **Expenditure, Postmaster-General's Department.**—(i) *Distribution.* The following table shows, as far as possible, the distribution of actual expenditure on various items in each State during the year ended 30th June, 1937. The table must not be regarded as a statement of the working expenses of the Department, since items relating to new works, interest, etc. are included therein.

EXPENDITURE, POSTMASTER-GENERAL'S DEPT.—DISTRIBUTION, 1936-37.

Particulars.	Central Office.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£	£
Expenditure from Ordinary Votes—								
Salaries and payments in the nature of salary ..	54,642	1,892,484	1,322,979	720,014	472,794	364,670	179,375	5,006,958
General expenses ..	11,940	145,703	110,787	40,610	32,833	24,726	10,136	376,794
Stores and material ..	1,708	63,965	40,568	25,799	13,209	10,869	5,671	161,789
Mail services ..	221,884	413,456	251,898	213,207	71,940	80,665	35,160	1,288,210
Engineering services (other than New Works) ..	52,666	1,099,452	765,050	351,649	263,630	206,278	122,323	2,861,048
Other services ..	42,808	..	..	..	..	..	..	42,808
Total ..	385,648	3,615,060	2,491,282	1,351,288	854,406	687,208	352,715	9,737,607
Pensions and retiring allowances ..	..	29,428	30,810	..	..	25,105	..	85,343
Rent, repairs, maintenance, fittings, etc. ..	..	47,060	36,551	23,647	9,851	9,977	4,517	131,603
Proportion of audit expenses ..	..	4,220	2,900	1,535	930	703	362	10,650
New Works—								
Telegraph, telephone and wireless ..	..	848,225	695,650	224,088	95,053	153,660	55,750	2,072,426
New buildings, etc.	..	261,306	39,320	17,048	11,071	12,787	5,121	346,653
Other expenditure not allocated to States ..	3,237,973	..	..	..	..	..	..	3,237,973
	(b)							
Grand Total ..	3,623,621	4,805,299	3,296,513	1,617,606	971,311	889,440	418,465	15,622,255
	(c)							(c)

(a) Orient Steam Navigation Company's Overseas Mail Contract and expenditure on air mail services.

(b) Particulars of apportionment to States not available.

(c) Including expenditure not apportioned to States.

(ii) *Total, 1933 to 1937.* The next table gives the actual payments made, as shown by records kept for Treasury purposes in respect of the Postal Department, for each of the years ended 30th June, 1933 to 1937 inclusive.

EXPENDITURE, POSTMASTER-GENERAL'S DEPARTMENT.

		Year ended 30th June—				
Expenditure.		1933.	1934.	1935.	1936.	1937.
		£	£	£	£	£
Total ..	..	12,165,210	12,288,173	13,458,581	14,424,388	15,622,255

The total expenditure increased by 8.3 per cent. during 1936-37.

5. **Profit or Loss, Postmaster-General's Department.**—(i) *States, 1936–37.* The foregoing statements of gross revenue and expenditure represent actual collections and payments made and cannot be taken to represent the actual results of the working of the Department for the year. The net results for each branch in the several States after providing for working expenses, depreciation and interest charges, including exchange, during the year, were as follows:—

PROFIT OR LOSS, POSTMASTER-GENERAL'S DEPARTMENT. 1936–37.

Branch.	Profit or Loss.	New South Wales.	Victoria.	Queens- land.	South Australia.	Western Australia.	Tasmania.	Australia.
		£	£	£	£	£	£	£
Postal ..	{ Profit Loss	855,150 ..	639,021 ..	291,063 ..	140,368 ..	108,303 ..	22,058 ..	2,055,963 ..
Telegraph ..	{ Profit Loss	23,903 ..	58,775 ..	.. 246	.. 5,133	9,656 ..	.. 7,164	79,791 ..
Wireless ..	{ Profit Loss	52,599 ..	47,055 ..	.. 5,799	8,707 ..	.. 6,981	.. 7,863	87,718 ..
Telephone ..	{ Profit Loss	568,820 ..	407,870 ..	180,827 ..	.. 1,906	6,165 ..	.. 44,318	1,117,458 ..
All Branches	{ Profit Loss	1,500,472 ..	1,152,721 ..	465,845 ..	142,036 ..	117,143 ..	.. 37,287	3,340,930 ..

After providing for depreciation, pensions and retiring allowances and interest on capital, the year 1936–37 closed with a surplus of £3,340,930. For the preceding year a surplus of £2,983,985 was shown.

(ii) *Branches, 1933 to 1937.* The following statement gives particulars of the operating results of each branch for the period 1933 to 1937:—

PROFIT OR LOSS, POSTMASTER-GENERAL'S DEPARTMENT—BRANCHES.

Year Ended 30th June—	Branch.									
	Postal.		Telegraph.		Wireless.		Telephone.		All Branches.	
	Profit.	Loss.	Profit.	Loss.	Profit.	Loss.	Profit.	Loss.	Profit.	Loss.
	£	£	£	£	£	£	£	£	£	£
1933 ..	1,471,685	..	..	101,588	22,796	..	..	200,275	1,192,618	..
1934 ..	1,684,608	..	..	41,012	87,235	..	269,273	..	2,000,104	..
1935 ..	1,828,279	..	15,019	..	162,343	..	402,332	..	2,407,973	..
1936 ..	1,948,385	..	64,993	..	86,184	..	884,423	..	2,983,985	..
1937 ..	2,055,963	..	79,791	..	87,718	..	1,117,458	..	3,340,930	..

6. **Capital Account.**—The appended statement shows particulars of the fixed assets of the Postmaster-General's Department at 30th June, 1937:—

FIXED ASSETS, POSTMASTER-GENERAL'S DEPARTMENT, 30th JUNE, 1937.

Particulars.	Net Value, 1st July, 1936.	Capital Expenditure, 1936-37.	Gross Value, 30th June, 1937.	Less Deprecia- tion, &c. 1936-37. (a)	Net Value, 30th June, 1937.
	£	£	£	£	£
Telephone service plant (exclusive of Trunk lines) ..	34,318,844	2,236,822	36,555,666	643,977	35,911,689
Trunk and Telegraph service plant (Aerial Wires) ..	10,430,158	189,629	10,619,787	65,381	10,554,406
Telegraph service plant ..	661,038	15,921	676,959	9,511	667,448
Postal service plant ..	416,597	7,178	423,775	3,211	420,564
Wireless plant ..	299,024	92,443	391,467	1,818	389,649
Sites, buildings, furniture and office equipment ..	9,560,757	263,401	9,824,158	38,697	9,785,461
Miscellaneous plant ..	659,905	141,540	801,445	48,706	752,739
Total	56,346,323	2,946,934	59,293,257	811,301	58,481,956

(a) Includes dismantled assets, depreciation written off, and assets transferred.

During the past quinquennium the value of the fixed assets has increased by 11.1 per cent., the net value at 30th June, 1932, being £52,633,505.

§ 2. Posts.

1. **Postal Matter Dealt With.**—(i) *Australia.* The following table gives a summary of the postal matter dealt with in Australia during the five years 1933 to 1937. Although mail matter posted in Australia for delivery therein is necessarily handled at least twice, only the numbers dispatched are included in the following table, which consequently gives the number of distinct articles handled:—

POSTAL MATTER DEALT WITH—AUSTRALIA.

Year ended 30th June—	Letters, Postcards, Letter Cards and Packets.		Newspapers.		Parcels.		Registered Articles other than Parcels.	
	Number (,000 omitted).	Per 1,000 of Popula- tion.	Number (,000 omitted).	Per 1,000 of Popula- tion.	Number (,000 omitted).	Per 1,000 of Popula- tion.	Number (,000 omitted).	Per 1,000 of Popula- tion.

POSTED WITHIN AUSTRALIA FOR DELIVERY THEREIN.

1933	699,932	105,974	118,357	17,920	8,661	1,311	6,093	923
1934	733,506	110,217	121,600	18,272	8,549	1,285	6,223	935
1935	752,112	112,215	125,088	18,663	8,456	1,262	6,576	981
1936	775,469	114,869	129,290	19,152	8,606	1,275	6,814	1,009
1937	792,800	116,519	133,034	19,550	8,811	1,295	7,128	1,048

TOTAL POSTAL MATTER DEALT WITH.

1933	751,777	112,963	139,963	21,931	9,044	1,369	6,710	1,016
1934	790,166	118,731	142,040	21,343	8,942	1,344	6,870	1,032
1935	809,729	120,812	147,662	22,031	8,876	1,324	7,273	1,085
1936	832,685	123,344	150,755	22,331	9,058	1,342	7,539	1,117
1937	853,676	125,455	156,123	22,943	9,264	1,362	7,939	1,167

(ii) *States.* The next table shows separately for each State the postal matter dealt with in 1936-37.

POSTAL MATTER DEALT WITH—STATES 1936-37.(a)

State.	Letters, Postcards, Letter Cards and Packets.		Newspapers.		Parcels.		Registered Articles other than Parcels.	
	Number (,000 omitted).	Per 1,000 of Popula- tion.	Number (,000 omitted).	Per 1,000 of Popula- tion.	Number (,000 omitted).	Per 1,000 of Popu- lation.	Number (,000 omitted).	Per 1,000 of Popu- lation.
POSTED FOR DELIVERY WITHIN AUSTRALIA.								
New South Wales	321,900	119,633	65,833	24,467	3,765	1,399	2,736	1,017
Victoria ..	222,594	120,168	26,059	14,068	1,782	962	1,967	1,062
Queensland ..	100,814	102,441	21,984	22,034	1,788	1,715	1,031	1,048
South Australia ..	57,263	90,404	7,142	12,031	774	1,304	597	955
Western Australia	52,120	115,338	0,109	13,519	680	1,518	570	1,201
Tasmania ..	38,178	164,612	6,207	26,763	116	500	257	1,108
Australia ..	792,869	116,519	133,034	19,550	8,811	1,295	7,128	1,048
OVERSEA DISPATCHED.								
New South Wales	10,324	3,837	2,280	847	108	40	171	64
Victoria ..	8,309	4,480	3,425	1,849	46	25	101	55
Queensland ..	2,881	2,927	790	803	14	14	44	45
South Australia ..	3,180	5,357	475	800	8	13	19	32
Western Australia	3,440	7,612	522	1,155	11	24	28	62
Tasmania ..	2,558	11,029	205	884	3	13	4	17
Australia ..	30,692	4,510	7,697	1,131	190	28	367	54
OVERSEA RECEIVED.								
New South Wales	12,202	4,535	7,657	2,846	126	47	217	81
Victoria ..	8,811	4,757	2,785	1,503	76	41	138	74
Queensland ..	2,575	2,617	1,478	1,502	21	21	35	36
South Australia ..	2,064	3,477	1,215	2,047	14	24	18	30
Western Australia	3,407	7,539	1,875	4,149	21	46	29	64
Tasmania ..	1,056	4,553	382	1,647	5	22	7	30
Australia ..	30,115	4,426	15,392	2,262	263	39	444	65

(a) See explanation in paragraph (i).

2. *Value—Payable Parcel Post.*—(i) *General.* The Postal Department undertakes to deliver registered articles sent by parcel post within Australia, or between Papua or Nauru and Australia, to recover from the addressee on delivery a specified sum of money fixed by the sender, and to remit the sum to the sender by money order, for which the usual commission is charged. The object of the system is to meet the requirements of persons who wish to pay at the time of receipt for articles sent to them, also to meet the requirements of traders and others who do not wish their goods to be delivered except on payment.

(ii) *Summary of Business.* The next statement gives particulars regarding the value-payable post in each State for the years 1933 to 1937 :—

VALUE-PAYABLE PARCEL POST.—SUMMARY.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
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NUMBER OF PARCELS POSTED.

	No.	No.	No.	No.	No.	No.	No.
1933	289,975	37,567	210,992	23,559	79,820	1,711	643,624
1934	305,972	40,769	204,459	21,309	79,030	1,782	653,321
1935	309,024	36,959	200,358	19,940	76,174	1,720	644,175
1936	324,800	39,700	192,539	20,340	76,946	2,023	656,348
1937	326,045	35,510	186,439	20,367	75,068	1,573	645,002

VALUE COLLECTED.

	£	£	£	£	£	£	£
1933	343,155	49,392	261,183	24,704	81,029	1,980	761,443
1934	377,752	55,395	248,002	22,502	83,524	1,970	789,055
1935	364,750	50,469	244,829	19,965	83,364	1,936	765,313
1936	389,595	55,577	236,608	22,347	81,538	2,597	788,262
1937	398,582	50,529	230,656	22,343	84,382	2,111	788,603

REVENUE INCLUDING POSTAGE, COMMISSION ON VALUE, REGISTRATION AND MONEY ORDER COMMISSION.

	£	£	£	£	£	£	£
1933	37,555	4,952	25,723	3,031	9,867	212	81,340
1934	40,356	5,460	26,947	2,827	10,452	213	86,255
1935	39,653	5,012	24,623	2,307	8,912	215	80,722
1936	43,285	5,334	24,830	2,546	8,775	242	85,012
1937	43,214	4,761	25,081	2,448	8,666	191	84,361

The number and value of parcels forwarded in New South Wales and Queensland are much higher than in any of the other States, although the system has also found favour in Western Australia. These three States have the largest areas, and consequently more people at long distances from business centres who avail themselves of the value-payable system. Although South Australia also has a large area, the population of that State is, comparatively, not widely spread.

3. *Sea-borne Mail Services.*—(i) *General.* In earlier issues of this work particulars of sea-borne mail services were included, but owing to the restrictions of space the insertion of this information terminated with Year Book No. 22.

(ii) *Amount of Subsidies Paid.* The following table shows the amounts of subsidies paid by the Commonwealth Postal Department for ocean and coastal mail services during the year ended 30th June, 1937 :—

MAIL SUBSIDIES.—OCEAN AND COASTAL SERVICES, 1936-37.

Service.	Orient S.N. Co.	Queens- land Ports.	South Australian Ports.	Western Australian Ports.	Tas- manian Ports.
Annual subsidy	£ Stg. 110,000	£ 975	£ 3,800	£ 5,500	£ 55,379

4. **Total Cost of Carriage of Mails.**—During the year 1936-37 the total amount paid for the carriage of mails, as disclosed by the Profit and Loss Account of the Postal Branch was £1,297,187. Details appear hereunder :—

CARRIAGE OF MAILS.—TOTAL COST, 1936-37.

Inland Mails.		Non-Contract Vessels.	Overland and Sea Transit.	Coastwise Mails.	Mails to Europe. (a)	Air Mails.	Other Payments.	Total
By Road.	By Railway.							
£ 513,117	£ 436,758	£ 37,774	£ 5,619	£ 12,490	£ 137,500	£ 127,207	£ 26,722	£ 1,297,187

(a) Orient contract.

5. **Transactions of the Dead Letter Offices.**—The table hereunder shows the number of letters, postcards and letter-cards, and packets and circulars, including Inland, Interstate and International, dealt with by the Dead Letter Offices in 1936-37, and the methods adopted in the disposal thereof :—

DEAD LETTER OFFICES.—SUMMARY, 1936-37.

Particulars.	N.S.W.	Vic.	Qland.	S. Aust.	W. Aust.	Tas.	Australia.
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LETTERS, POSTCARDS AND LETTER-CARDS.

Returned direct to writers or delivered	586,740	244,149	187,948	71,203	110,976	65,802	1,266,818
Destroyed in accordance with Act	71,922	34,670	15,341	9,733	4,526	2,922	139,114
Returned to other States or Countries as unclaimed	34,513	18,502	8,060	3,004	8,276	762	73,117
Total	693,175	297,321	211,349	83,940	123,778	69,486	1,479,049

PACKETS AND CIRCULARS.

Returned direct to writers or delivered	200,010	136,910	267,476	9,707	63,712	31,638	709,453
Destroyed in accordance with Act	59,162	27,114	31,161	7,958	6,966	864	133,225
Returned to other States or Countries as unclaimed	5,515	3,670	2,317	1,365	650	582	14,099
Total	264,687	167,694	300,954	19,030	71,328	33,084	856,777
Grand Total (letters, packets, etc.)	957,862	465,015	512,303	102,970	195,106	102,570	2,335,826

During the year 1936-37 money and valuables to the amount of £32,903 were found in undeliverable postal articles.

6. **Money Orders and Postal Notes.**—(i) *General.* The issue of money orders and postal notes is regulated by sections 74 to 79 of the Post and Telegraph Act, 1901. A money order may be issued for payment of sums up to £20 within Australia, and not exceeding £40 (in some cases £20, and in Mauritius £10) in places abroad. A postal note, which is payable only within Australia and in Papua, cannot be issued for a larger sum than twenty shillings.

(ii) *States, 1936-37.* Particulars regarding the business transacted in each State for the year 1936-37 are given hereunder:—

MONEY ORDERS AND POSTAL NOTES.—SUMMARY, 1936-37.

State.	Value of Money Orders Issued.	Value of Money Orders Paid.	Net Money Order Commission Received.	Value of Postal Notes Issued.	Foundage Received on Postal Notes.
	£	£	£	£	£
New South Wales ..	8,128,672	8,192,981	41,390	3,219,238	75,090
Victoria ..	3,300,660	3,592,527	21,140	2,075,090	50,674
Queensland ..	2,598,076	2,412,592	17,268	868,402	19,230
South Australia ..	932,286	937,540	5,619	501,197	12,216
Western Australia ..	1,524,051	1,396,978	9,278	487,179	10,934
Tasmania ..	614,193	572,276	3,237	196,584	4,500
Australia ..	17,097,938	17,104,894	97,932	7,347,690	172,644

The figures in the foregoing table relating to money orders and postal notes show an increase compared with the previous year.

(iii) *Australia, 1933 to 1937.* The next table shows the total number and value of money orders and postal notes issued and paid in Australia from 1932-33 to 1936-37:—

MONEY ORDERS AND POSTAL NOTES.—SUMMARY, AUSTRALIA.

Year ended 30th June—	Money Orders.				Postal Notes.			
	Issue.		Paid.		Issued.		Paid.	
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
	No. (,000).	£ (,000).	No. (,000).	£ (,000).	No. (,000).	£ (,000).	No. (,000).	£ (,000).
1933 ..	2,707	14,257	2,691	14,229	16,717	5,746	16,735	5,729
1934 ..	2,769	14,646	2,762	14,589	19,595	6,397	19,446	6,370
1935 ..	2,859	15,185	2,847	15,169	19,557	6,650	19,489	6,631
1936 ..	2,968	16,303	2,938	16,260	21,083	7,221	21,103	7,222
1937 ..	3,066	17,098	3,057	17,105	20,622	7,348	20,538	7,313

(iv) *Classification of Money Orders Issued and Paid.* (a) *Money Orders Issued.* The next table shows the number and value of money orders issued during the year 1936-37, classified according to the country where payable:—

MONEY ORDERS ISSUED.—COUNTRY WHERE PAYABLE, 1936-37.

Where Issued.	Where Payable.				Total.
	In Australia.	In New Zealand.	In Great Britain and Ireland.	In Other Countries.	
NUMBER.					
Australia	2,905,707	22,868	93,561	43,708	3,065,844
VALUE.					
Australia	£ 16,673,971	£ 62,672	£ 203,930	£ 157,365	£ 17,097,938

(b) *Money Orders Paid.* The number and value of money orders paid during the year 1936-37, classified according to the country where issued, are given hereunder:—

MONEY ORDERS PAID.—COUNTRY OF ISSUE, 1936-37.

Where Paid.	Where Issued.				Total.
	In Australia.	In New Zealand.	In Great Britain and Ireland.	In Other Countries.	
NUMBER.					
Australia	2,929,676	52,324	47,347	27,716	3,057,063
VALUE.					
Australia	£ 16,695,278	£ 138,402	£ 177,513	£ 93,701	£ 17,104,894

In the tables above, money orders payable or issued in foreign countries which have been sent from or to Australia through the General Post Office in London are included in those payable or issued in Great Britain and Ireland.

(v) *Classification of Postal Notes Paid.* The subjoined table shows the number and value of postal notes paid during the year 1936-37, classified according to the State in which they were issued.

Particulars regarding the total number and value of postal notes issued and paid in each of the last five years have been given previously.

POSTAL NOTES PAID.—STATE OF ISSUE, 1936-37.

Particulars.	Postal Notes Paid in—						
	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
NUMBER.							
Issued in same State	7,488,987	5,752,478	1,850,054	821,602	1,086,167	411,877	15,420,165
Issued in other States	833,104	527,114	831,202	104,422	69,123	2,753,271	5,118,236
Total ..	8,322,091	4,279,592	2,690,256	926,024	1,155,290	3,165,148	20,538,401
VALUE.							
Issued in same State	£ 2,707,088	£ 1,367,453	£ 702,231	£ 301,788	£ 401,558	£ 143,143	£ 5,623,261
Issued in other States	287,526	211,965	297,932	43,512	18,692	830,491	1,690,118
Total ..	2,994,614	1,579,418	1,000,163	345,300	420,250	973,634	7,313,379

The number of postal notes paid in Australia during the year showed a decrease of 2.7 per cent., while the value showed an increase of 1.3 per cent. compared with the corresponding figures for the year 1935-36.

§ 3. Telegraphs.

1. General.—(i) *Development of System.* A review of the development of the Telegraph Services in Australia was given in a previous issue of this work (see Year Book No. 15, p. 625), but limitations of space preclude the repetition of this information in the present issue. During the past few years substantial improvements in both the speed and grade of telegraph service throughout Australia have been effected, the entire system being subjected to intensive reorganization.

(ii) *External Circulation or Routing of Traffic.* The external circulation system of the Australian telegraph service has been considerably modified, direct communication having been established between cities and towns which formerly were served through intermediate repeating centres. The reorganization has eliminated the loss of time in transit, improved the grade of service, and led to economy as regards the labour formerly required in manual re-transmission. As a result of the reorganization there are now only five repeating centres, eighteen centres having been abolished.

(iii) *Carrier Wave System.* This system which permits a number of messages to be transmitted simultaneously over the one pair of wires is now in operation between Perth and Adelaide, Adelaide and Melbourne, Melbourne and Sydney, and Sydney and Brisbane. There are now 41,158 miles of one-way telegraph carrier channels in operation.

(iv) *Voice-Frequency System.* This system, which enables a number of telegraph channels to be superposed on a single telephone channel by employing frequencies from 420 to 2,460 cycles per second, has been introduced between Sydney and Tamworth. Between these two points 18 duo-directional channels have been provided by adopting the voice-frequency principle, equivalent to 9,360 miles of uni-directional channels. In view of the service and economic advantages of the system, extensions to other main telegraph routes are contemplated.

(v) *Direct Telegraph Communication over Great Distances.* The telegraph system in Australia provides direct communication between many places separated by great distances as indicated in the following examples:—Sydney-Perth, 2,605 miles; Perth-Wyndham, 1,933 miles; Melbourne-Brisbane, 1,246 miles; Brisbane-Cairns, 1,056 miles; Brisbane-Cloncurry, 1,215 miles; Adelaide-Perth, 1,627 miles; Melbourne-Perth, 2,104 miles; Adelaide-Darwin, 1,040 miles; and Sydney-Adelaide, 1,068 miles. These direct channels provide a speedy service between the centres named, the average time involved in the transmission of a telegram being ten minutes.

(vi) *Machine Telegraphy.* In order to speed up transmission, machine printing telegraph systems have been introduced between capital cities and between important country centres. Murray multiplex machine apparatus is in operation between Sydney and Melbourne, Sydney and Brisbane, Sydney and Adelaide, Sydney and Perth, Sydney and Canberra, Sydney and Lismore, Sydney and Newcastle, Sydney and Wagga Wagga, Melbourne and Brisbane, Melbourne and Adelaide, Melbourne and Perth, Melbourne and Canberra, Adelaide and Perth, Brisbane and Rockhampton, and Brisbane and Townsville, providing telegraph outlets which permit the carriage of very heavy loads with a minimum transit time. The operation of the apparatus has been steadily improved, and the system now gives a high output. Between Melbourne and Mildura, Melbourne and Launceston, Sydney and Tamworth, Brisbane and Toowoomba, Brisbane and Mackay, Perth and Fremantle, and Perth and Kalgoorlie, start-stop telegraph printing systems are in operation.

(vii) *Phonogram Service.* Telephone subscribers may now telephone telegrams for onward transmission, or have messages telephoned to them. The fee for the service is small, and the innovation means, in effect, that the telegraph system is brought into the home of every telephone subscriber. The number of telegrams lodged by telephone during the twelve months ended 30th June, 1937, was 2,705,834 or 15.8 per cent. of the total lodgments, and the popularity of this facility is growing.

(viii) *Radiograms within Australia.* On 1st May, 1929, the rates for radiograms between Flinders Island, Wave Hill, Brunette Downs and other places within the Commonwealth were reduced to 1½d. per word with a minimum charge of two shillings. Communication at these rates was extended to Lord Howe Island in August, 1929.

(ix) *Pedal Wireless Stations.* A number of privately operated pedal wireless transceiver stations have been established in the far North-West of the Commonwealth, enabling telegrams to be exchanged with departmental telegraph offices. These pedal stations are sponsored by the Australian Aerial Medical Services and communicate by wireless with base stations established at Wyndham and Port Hedland. The radiogram rates of 1½d. per word with a minimum charge of two shillings apply to pedal station telegrams.

(x) *Picturegram Service.* During the year ended 30th June, 1937, 603 picturegrams were transmitted between Sydney and Melbourne, the revenue being £1,339. Any kind of picture or document may be accepted for transmission, the charges varying from 30s. to 67s. 6d. according to the size of the picture or document and the grade of transmission desired.

(xi) *Overseas Phototelegram Service.* An overseas phototelegram service, "via Beam," was inaugurated in October 1934, permitting the transmission in either direction of facsimiles between Sydney or Melbourne and England, of dimensions up to a maximum of ten inches by seven inches. The charges are calculated at the rate of three shillings and three pence per square centimetre with a minimum charge of £16 5s. as for 100 square centimetres.

(xii) *Ornamental Telegram Forms.* The use of appropriately designed telegram forms for conveying Christmas and New Year greetings continues to increase in volume and popularity. In 1937, 356,070 Greeting Telegrams were sent, an increase of 147.1 per cent. on the number (144,102) sent in 1929, the year of inception of the service.

During the year 1933-34 telegram forms of special design and attractive colouring in connexion with Mothers' Day messages, Birthday greetings and Congratulatory telegrams were placed at the disposal of the public. The popularity of these facilities is indicated by the increase in the number of Mothers' Day telegrams from 16,001 in 1934 to 47,833 in 1938. Complete statistics are not available in respect of Birthday greetings and Congratulatory messages, but it is estimated that the number of telegrams in these categories is approximately 750,000 annually. In 1930 two additional greeting facilities employing ornamental telegram stationery were introduced, one for the conveyance of social greetings and the other for use during Easter-tide. The number of Easter Greeting telegrams in 1935, prior to the introduction of the special form for the occasion, was 4,104. This figure increased to 12,573 in 1938. Extensive use is also being made of the Social telegram service, which is popular for conveying "bon voyage" greetings and for making social engagements.

(xiii) *Private Wire Teletypewriter and Printergram Services.* In conformity with its policy of placing at the service of the public new developments in communication, the Department has now introduced the teletypewriter service. This may be briefly defined as typewriting over electrical circuits, teletypewriters being similar in performance to typewriters, except that the keyboard and distant printer are electrically connected by means of a telegraph line.

This facility combines the speed of the telegraph and the flexibility and personal touch of the telephone with the accuracy and permanency of the printed word. It affords the great advantage of direct and instantaneous communication between points within the same building or separated by distances up to thousands of miles. Communications are automatically produced at both ends exactly as sent, and information may be despatched with the utmost privacy even in exposed situations where other means are unsuitable. It affords two-way communication at speeds up to 60 words a minute.

Printergram services connecting any business premises with the local Telegraph Office for the transmission and reception of telegrams are also available. This saves time and labour, while providing a permanent record of each transaction.

Thirty private wire services employing 102 teleprinter units have already been installed, including a stock ticker service enabling the simultaneous communication of information from a single transmitting unit located in the Sydney Stock Exchange to each of 35 printer units installed in the offices of city stock-brokers.

2. **Telegraph Offices, Length of Lines and Wire.**—(i) *Summary for Australia.* The following table shows the number of telegraph offices and the length of telegraph lines and of telegraph wire available for use in Australia in each year from 1933 to 1937:—

TELEGRAPHS, AUSTRALIA.—SUMMARY.

Particulars for Year ended 30th June.	1933.	1934.	1935.	1936.	1937.
Number of offices	9,162	9,199	9,255	9,252	9,320
Length of wire (miles)—					
Telegraph purposes only	55,302	54,655	54,806	56,292	55,196
Telegraph and telephone purposes ..	101,797	102,953	104,203	113,277	121,788
Length of line (miles)—					
Conductors in Morse cable	4,401	4,538	4,694	4,815	4,863
Conductors in submarine cable					
(statute miles)	4,833	4,764	4,883	5,193	5,421
Pole routes (miles)	99,951	96,395	97,694	97,850	96,917

(ii) *States.* The following table gives corresponding particulars for each State for the year 1936-37:—

TELEGRAPHS.—STATES, SUMMARY, 30th JUNE, 1937.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus- tralia.
Number of offices	3,059	2,435	1,543	821	929	533	9,320
Length of wire (miles)—							
Telegraph purposes only	16,225	7,757	14,785	6,693	9,072	664	55,196
Telegraph and telephone purposes	45,486	15,768	36,490	13,902	8,694	1,448	121,788
Length of line (miles)—							
Conductors in Morse cable	2,697	1,452	491	..	199	24	4,863
Conductors in submarine cable (statute miles)	3,823	372	330	226	193	477	5,421
Pole routes (miles)	32,721	19,212	14,491	14,913	12,090	3,490	96,917

A total length of 176,984 miles of wire is available for telegraph purposes, of which 121,788 miles are also used for telephone purposes. Compared with those for the previous year, the figures show an increase of 7,415 miles (4.4 per cent.) in the total length and an increase of 8,511 miles (7.5 per cent.) in the length of line used for both telegraph and telephone purposes.

3. **Number of Telegrams Dispatched.**—(i) *Australia.* The number of telegrams dispatched to destinations within Australia in each of the last five years is given hereunder :—

TELEGRAMS DISPATCHED.—AUSTRALIA.

Telegrams.	Year ended 30th June—				
	1933.	1934.	1935.	1936.	1937.
Number (a) ..	12,778,028	13,393,627	14,617,871	15,508,843	16,268,416

(a) Including radiogram traffic with islands adjacent to the Commonwealth and to ships at sea.

(ii) *States.* The appended table shows the total number of telegrams dispatched in each State in 1936-37 according to the class of message transmitted :—

TELEGRAMS DISPATCHED(a).—STATES, 1936-37.

Class of Message Transmitted within Australia.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	No.	No.	No.	No.	No.	No.	No.
Paid and Collect—							
Ordinary ..	4,912,928	3,262,753	2,516,687	1,046,566	1,644,646	276,247	13,659,827
Urgent ..	228,882	89,443	66,448	36,105	51,865	8,000	481,442
Press ..	202,189	105,285	80,402	42,170	47,045	32,058	510,148
Lettergram ..	81,650	47,065	60,855	32,974	191,977	23,304	354,485
Radiogram ..	32,899	3,231	7,217	5,174	3,073	3,212	54,806
Total ..	5,458,548	3,508,377	2,737,699	1,162,998	1,848,606	344,480	15,060,708
Unpaid—							
Service ..	158,758	61,916	64,980	41,285	53,168	21,001	401,108
Shipping ..	22,576	77,210	16,087	3,760	11,124	5,812	130,578
Meteorological ..	203,771	00,642	95,005	120,804	118,005	30,872	670,022
Total ..	385,108	220,777	176,072	174,000	183,257	57,085	1,207,708
Grand Total ..	5,843,656	3,738,154	2,914,671	1,337,907	2,031,863	402,165	16,268,416

(a) See Note (a) above.

The figures in the foregoing table show an increase in the total volume of telegraph business of 759,573 messages (4.9 per cent.) as compared with the previous year.

4. **Letter-telegrams.**—Letter-telegrams are accepted at any hour at telegraph offices which are open for business after 7 p.m., subject to the condition that delivery is effected by posting at the letter-telegram office of destination.

5. **Revenue and Expenditure.**—Particulars of the revenue and net operating results of the telegraph systems for the years 1932-1933 to 1936-37 are given in earlier pages.

6. **Telegraph Density.**—The latest statistics available disclose that, on a population basis, Australia now occupies a pre-eminent position in the world in the use of the Telegraph Service, with an average of 2.3 messages annually per head of population. The United States of America has the second highest average of 1.4 followed by Great Britain and Northern Ireland with 1.1 per head of population. The following table gives the figures for the more important countries :—

TELEGRAPH DENSITY STATISTICS.—CHIEF COUNTRIES.

Country.	Percentage of Telegraph to Total Wire Communication.	Telegraph Communication per Head of Population.
Australia	3.2	2.3
Austria	0.3	0.2
Belgium	1.9	0.6
Canada	0.4	0.9
Czechoslovakia	1.4	0.3
Denmark	0.3	0.5
Finland	0.3	0.2
France	3.0	0.7
Germany	0.7	0.3
Great Britain	2.8	1.1
Hungary	1.3	0.2
Japan	1.3	0.8
Netherlands	0.7	0.3
Norway	1.2	1.0
Poland	0.6	0.1
Spain	3.0	1.0
Sweden	0.4	0.6
Switzerland	0.6	0.4
Union of South Africa	2.5	0.8
United States of America	0.7	1.4

§ 4. Overseas Cable and Radio Communication.

1. **First Cable Communication with the Old World.**—In earlier issues of the Year Book will be found a detailed account of the connexion of Australia with the old world by means of submarine cables. (See No. 6, p. 770.)

2. **General Cable Service.**—Descriptions of the various cable services between Australia and other countries are given in Year Book No. 22, pp. 335 and 336.

3. **Merging of Cable and Wireless Interests.**—Following upon the recommendations of the Imperial Wireless and Cable Conference in London in 1928 to examine the situation which has arisen as the result of the competition of the Beam Wireless with the Cable services, the Imperial and International Communications Limited (since renamed Cable and Wireless Ltd.) was formed and took over the operations of the Pacific Cable Board and the control of the Eastern Extension Cable Company and the Marconi Wireless Company. Further particulars in relation to wireless services will be found in par. 5 of this section and in § 6, Radio Telegraphy and Telephony.

4. **Overseas Cable and Radio Traffic.**—(i) *Australia.* The subjoined table shows the number of international telegrams received from and dispatched overseas in Australia from 1934-35 to 1936-37:—

INTERNATIONAL TELEGRAMS.—AUSTRALIA.

Messages.	Number Received.			Number Dispatched.			Total Number Received and Dispatched.		
	1934-35.	1935-36.	1936-37.	1934-35.	1935-36.	1936-37.	1934-35.	1935-36.	1936-37.
Number	625,842	639,142	692,727	684,761	693,864	746,739	1,310,603	1,333,006	1,439,466

(ii) *States.* The number of telegrams received from and dispatched overseas in each State during the year 1936-37 is given hereunder:—

INTERNATIONAL TELEGRAMS.—STATES, 1936-37.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number received	371,467	224,057	26,177	32,051	29,856	9,119	692,727
Number dispatched	370,741	253,480	33,005	37,590	41,397	10,526	746,739
Total	742,208	477,537	59,182	69,641	71,253	19,645	1,439,466

5. **Cable and Beam Wireless Rates.** (i) *Ordinary Messages.* As from the 25th April, 1938, the Cable and Beam Wireless rates per word for telegrams exchanged between Australia and British Empire Countries were reduced to the following levels:—Urgent, 2s. 6d.; Ordinary, 1s. 3d.; C.D.E. (5 letter code), 10d.; (minimum 5 words); Deferred, 7½d.; British Government, 7½d.; Daily Letter Telegram, 5d.; (minimum charge 10s. 5d. as for 25 words). Where, however, the charges between Australia and certain Empire countries (e.g., New Zealand, Fiji and some Pacific Islands) were below these levels, the rates were unaltered. No change was effected in the rates for traffic exchanged between Australia and foreign countries.

The following are the ordinary rates at present operating in regard to traffic with the principal countries, other than members of the British Empire:—

INTERNATIONAL TELEGRAM RATES.

To—	Rate per Word and Route.	
	Via Cable.	Via Beam.
European Countries	2s. 6d. to 2s. 7d.	1s. 11½d. to 2s. 5½d.
Asiatic Countries	2s. 5d. to 4s. 7d.	.. ..
Africa	2s. 6d. to 5s. 6d.	2s. 2½d. to 2s. 11d.
United States of America	2s. 4d. to 2s. 8d.	2s. 1½d. to 2s. 5d.
Central America	3s. 2½d. to 4s. 4½d.	2s. 11½d. to 4s. 4½d.
West Indies	3s. 0d. to 5s. 1d.	2s. 8½d. to 4s. 11d.
South America	3s. 9d. to 5s. 9d.	3s. 8d. to 5s. 2½d.

(ii) *Deferred Telegrams (via Cable or Beam).* Under this system a reduction of 50 per cent. in the ordinary charge for international telegrams is made under certain conditions. Deferred telegrams are transmitted after ordinary rate telegrams and ordinary press telegrams have been disposed of.

(iii) *Daily Letter Telegrams.* The Daily Letter Telegram service was inaugurated in September, 1923, between Australia and Great Britain and Canada, later being extended to most countries in the British Empire and in Europe, to the United States and to certain other places. The charges are based on one-third of the tariff per word for ordinary messages, subject to a minimum charge as for 25 words. These messages are delivered on the morning of the second day following that of lodgment.

(iv) *Night Letter Telegrams.* A Night Letter Telegram service was introduced between Australia and New Zealand on 1st May, 1924, and was extended to Fiji on 1st December 1924. The minimum charge for messages is fixed as for 25 words, the rates being—to New Zealand, 3s. 9d. minimum, 2d. for each additional word beyond 25; Suva, 5s. 10d. minimum, 3d. for each additional word; other places in Fiji, 7s. 4d. minimum, and 4d. for each additional word. Night Letter Telegrams are delivered by first post on the morning following the day of lodgment.

(v) *Overseas Press Telegrams.* The rate per word on ordinary press telegrams exchanged with Great Britain prior to the 25th April, 1938, was 6d. via Cable and 4d. via Beam, and on deferred press 4½d. and 3d. per word respectively. As from this date the rates were reduced to a uniform level irrespective of route, and are as follows—Ordinary Press, 4d. per word; Deferred Press, 3d. per word.

(vi) *Christmas Greeting Telegram Service.* A special Christmas and New Year greeting service is available between Australia and Overseas countries during the Christmas and New Year period each year. Special low rates are charged for these telegrams, the texts of which must be purely of a greeting nature. The messages are delivered on an appropriately designed form.

(vii) *Easter Greeting Telegram Service.* A special Easter greeting service is available between Australia and the United Kingdom, including Northern Ireland, during Easter periods. A special low tariff is applicable to this service. The texts of such telegrams are restricted to messages purely of a social or greeting character.

(viii) *Jewish New Year Greeting Telegram Service.* A special greeting telegram service has been established between Australia and certain overseas countries, including the United Kingdom, Egypt, Palestine, South Africa, United States of America and Canada for use during the Jewish New Year period. A specially reduced rate is charged for the service. The texts of such messages must consist of greetings only and be written in plain language.

(ix) *De-Luxe Telegram Service.* A de-luxe telegram service has been established between Australia and certain of the more important overseas countries whereby, on payment of an additional fee of sixpence per telegram, the message will be delivered to the addressee on an ornamental form enclosed in a decorative envelope.

§ 5. Telephones.

1. *Telephone Services.*—(i) *Mileage, etc., Australia.* The following table shows the mileage of lines, etc., for telephone purposes, giving trunk lines separately, on 30th June, 1934 to 1937.

TELEPHONE LINES.—AUSTRALIA.

Particulars.	Year ended 30th June—			
	1934.	1935.	1936.	1937.
Ordinary Lines—				
Conduits duct miles	6,733	7,128	7,771	8,546
" route miles	4,079	4,467	5,094	5,869
Conductors in aerial and underground cables loop mileage	837,094	847,393	861,437	892,795
Working conductors in cables for junction circuits, not included above loop mileage	71,592	74,849	75,094	77,889
Open conductors single wire mileage	419,015	417,640	421,075	425,857
Trunk Lines—				
Telephone trunk lines only miles	228,084	231,125	230,084	224,447
Telegraph and telephone purposes "	102,953	104,203	113,277	121,788

(ii) *Comparison with Other Countries.* During 1936-37 the telephone service expanded at a satisfactory rate, 32,935 telephones being added to the system, as compared with 30,945 for the preceding year. A notable feature was the marked improvement in the rate of development in country districts, the net additions being 8,306, the best total recorded for some years. With an average of 87 telephones per 1,000 of population Australia occupies seventh place among the countries of the world having the greatest density of telephones. The average length of wire per instrument in Australia is 4.5 miles.

(iii) *Trunk Line System.* It is proposed to provide underground telegraph and trunk line cables between (i) Sydney and Maitland (N.S.W.), a distance of approximately 123 miles and (ii) Melbourne and Geelong (Vic.), about 46 miles. The Newcastle cable will serve the northern portion of New South Wales and will also carry the inter-capital links between Sydney and Brisbane. The Geelong cable will carry the tele-communication channels serving Tasmania and the Western Districts of Victoria. Inter-capital links are being augmented and during the near future the Sydney-Melbourne group of channels will be increased from 18 to 24, the Sydney-Brisbane group from 7 to 10, the Melbourne-Adelaide group from 6 to 8, and the Mainland-Tasmania group from 6 to 7. The latter channels are carried in a submarine cable across Bass Strait.

A semi-automatic Trunk Exchange of modern design is being installed in Melbourne, and a new manually operated Trunk Exchange, which also embodies many additional facilities and operating aids, is being provided in Sydney.

(iv) *Automatic Exchanges.* At the 30th June, 1937, there were 110 automatic or semi-automatic exchanges in operation, providing facilities for 273,505 automatic telephones, representing 46 per cent. of the total telephones in use.

(v) *Rural Automatic Exchanges.* Progress has been made with the establishment of automatic exchanges in country districts, and on the 30th June, 1937, 33 units were in operation. The rate of installation is being accelerated and equipment has been ordered for additional exchanges. The provision of automatic facilities in rural areas enables the residents concerned to enjoy the benefits of a continuous telephone service, which it is not practicable to furnish under manual conditions because of the heavy outlay entailed.

(vi) *Summary for States.* Particulars relating to the telephone service in each State for the years ended 30th June, 1935 to 1937, will be found in the following table :—

TELEPHONE SERVICES.—SUMMARY.

Particulars.	Year (30th June).	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
No. of Exchanges ..	1935	1,951	1,650	979	556	639	312	6,117
	1936	1,967	1,651	995	561	647	345	6,166
	1937	1,985	1,663	1,012	570	652	354	6,236
No. of Telephone Offices (Including Exchanges)	1935	2,971	2,363	1,442	874	911	505	9,036
	1936	2,981	2,342	1,461	875	942	505	9,046
	1937	2,986	2,354	1,497	816	958	509	9,120
No. of lines connected ..	1935	150,257	121,631	51,448	38,652	22,129	11,908	396,025
	1936	160,323	128,313	53,784	39,911	23,020	12,310	417,661
	1937	170,724	135,751	55,796	41,467	23,838	12,895	440,471
No. of instruments connected	1935	202,363	168,198	67,161	50,512	29,336	14,807	532,377
	1936	215,803	177,397	70,844	52,585	30,882	15,357	562,868
	1937	229,727	187,753	73,793	55,019	32,346	16,217	594,855
(a) No. of subscribers' instruments	1935	196,854	164,373	64,604	48,916	28,042	13,972	516,851
	1936	210,090	173,436	68,288	50,954	29,553	14,511	546,841
	1937	223,712	183,613	71,092	53,319	30,976	15,349	578,061
(b) No. of public telephones	1935	3,459	2,408	1,595	824	888	537	9,711
	1936	3,561	2,412	1,633	834	896	542	9,878
	1937	3,758	2,465	1,672	875	900	551	10,221
(c) No. of other local instruments	1935	2,950	1,417	872	772	406	208	5,815
	1936	2,143	1,549	923	707	423	304	6,149
	1937	2,257	1,675	1,029	825	470	317	6,573
Instruments per 100 of population	1935	7.62	9.15	6.98	8.56	6.58	6.47	7.92
	1936	8.06	9.60	7.23	8.88	6.85	6.67	8.31
	1937	8.50	10.12	7.44	8.98	7.12	6.98	8.71
Earnings ..		£	£	£	£	£	£	£
	1935	2,400,286	1,792,748	898,346	559,646	311,175	145,212	6,137,413
	1936	2,646,392	1,949,307	965,829	598,719	377,602	160,026	6,688,875
	1937	2,902,740	2,115,372	1,002,338	640,001	396,978	178,186	7,235,615
Working expenses ..	1935	1,498,546	1,177,206	522,607	433,833	236,182	162,338	4,024,712
	1936	1,592,115	1,221,796	559,845	458,337	277,188	168,181	4,277,622
	1937	1,753,411	1,278,911	602,833	469,874	291,995	176,600	4,573,624
Percentage of working expenses on earnings		%	%	%	%	%	%	%
	1935	62.43	65.33	58.17	77.52	69.23	111.79	65.58
	1936	60.16	62.97	57.97	76.55	73.41	105.10	63.95
	1937	60.41	60.46	60.14	73.42	73.55	99.11	63.21

The number of instruments per 100 of population increased from 8.31 in 1935-36 to 8.71 in 1936-37. The net addition during 1936-37 totalled 32,935 telephones, a gain of 5.85 per cent. Of the total instruments connected at 30th June, 1937, 235,973, or 39.7 per cent., were served by exchanges situated beyond the limits of the telephone networks of the six State capital cities. The metropolitan networks are limited to a radius of 15 miles from the General Post Office in Sydney and Melbourne, and 10 miles in the other State capital cities. Instruments of the modern handset pattern are rapidly increasing in popularity. During 1936-37, 51,363 handsets were installed, compared with 37,887 in 1935-36, bringing the number in service to 130,045 or 22 per cent. of the total connexions.

(vii) *Systems in use.* The following table shows the percentage of automatic common battery and magneto telephone lines at 30th June, 1935 to 1937:—

PERCENTAGE OF AUTOMATIC, COMMON BATTERY AND MAGNETO LINES.

System.	30th June.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia
		%	%	%	%	%	%	%
Automatic	1935	48.44	40.66	37.99	38.74	50.86	31.17	43.36
	1936	50.33	42.25	39.15	39.58	52.36	32.26	44.96
	1937	51.59	43.81	40.19	40.53	53.05	33.03	46.24
Common Battery	1935	2.06	18.88	..	14.10	..	17.23	8.82
	1936	3.01	18.44	..	14.22	..	17.25	8.69
	1937	3.08	17.85	..	14.11	..	17.29	8.53
Magnetos	1935	48.60	40.46	62.01	47.16	49.14	51.60	47.82
	1936	46.66	39.31	60.85	46.20	47.64	50.49	46.35
	1937	45.33	38.34	59.81	45.36	46.95	49.68	45.23

(viii) *Subscribers' Lines and Calling Rates.* The next table gives the number of subscribers' lines and the daily calling rate at central, suburban and rural telephone exchanges in the several States for the year 1936-37 :—

TELEPHONE.—SUBSCRIBERS' LINES AND DAILY CALLING RATE, 1936-37.

State.	Central Exchanges.		Suburban Exchanges.		Rural Exchanges.		Total.	
	Subscribers' Lines.	Average Outward Calls Daily per line.	Subscribers' Lines.	Average Outward Calls Daily per line.	Subscribers' Lines.	Average Outward Calls Daily per line.	Subscribers' Lines.	Average Outward Calls Daily per line.
	No.	No.	No.	No.	No.	No.	No.	No.
New South Wales	19,325	12.69	81,560	4.56	63,379	2.56	164,264	4.74
Victoria ..	9,818	10.82	73,213	4.65	48,020	1.73	131,051	4.04
Queensland ..	7,852	10.10	15,056	3.56	31,610	2.59	54,518	3.94
South Australia ..	5,721	9.94	16,205	3.48	17,411	1.79	39,337	3.67
Western Australia	7,896	6.77	5,475	4.09	9,817	1.88	23,188	4.07
Tasmania ..	3,037	4.61	1,450	2.34	7,778	2.20	12,265	2.81
Australia ..	53,649	10.35	192,959	4.40	178,015	2.21	424,623	4.23

A comparison of the daily calling rates for each class of exchange shows that New South Wales registered the greatest number per line at central, Victoria at suburban, and Queensland at rural exchanges. For Australia as a whole, the average number of calls per line at central exchanges was approximately two and a third times the number registered at suburban exchanges, while the average for suburban exchanges was almost double the number shown for rural exchanges.

(ix) *Effective Paid Local Calls.* The numbers of effective paid local calls from private and public telephones in the various States during the years ended 30th June, 1935 to 1937 appear hereunder :—

TELEPHONE.—NUMBER OF EFFECTIVE PAID LOCAL CALLS.

State.	Subscribers' Calls.			Calls from Public Telephones.			Total Calls.		
	1934-35.	1935-36.	1936-37.	1934-35.	1935-36.	1936-37.	1934-35.	1935-36.	1936-37.
	'000.	'000.	'000.	'000.	'000.	'000.	'000.	'000.	'000.
New South Wales	169,108	185,770	205,850	15,667	17,803	19,184	184,775	203,573	225,034
Victoria ..	120,865	132,052	151,428	8,173	8,812	9,360	129,038	140,864	160,787
Queensland ..	51,651	55,637	58,207	3,549	3,930	4,218	55,200	59,566	62,425
South Australia	32,810	30,727	38,821	2,772	3,044	3,248	35,582	33,771	42,069
Western Australia	21,927	23,806	25,920	1,202	1,292	1,306	23,129	25,158	27,286
Tasmania ..	8,040	8,643	9,329	656	716	735	8,696	9,359	10,064
Total, Australia	404,407	442,695	472,615	32,019	35,606	38,120	436,426	478,301	530,735

(x) *Trunk Line Calls and Revenue.* In the next table the number of telephone trunk line calls recorded, the amount of revenue received, and the average revenue per call are shown for each of the States for the years 1934-35 to 1936-37 :—

TELEPHONES.—TRUNK LINE CALLS AND REVENUE.

Particulars.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia
Total Calls for Year—	No.	No.	No.	No.	No.	No.	No.
1934-35 ..	11,163,557	8,987,751	6,091,847	3,329,009	1,778,511	1,313,679	32,664,438
1935-36 ..	12,440,860	9,778,457	6,526,726	3,733,049	1,990,076	1,470,956	35,941,033
1936-37 ..	13,244,490	10,322,172	6,541,411	3,941,812	2,117,621	1,573,353	37,740,865
Total Revenue for Year—	£	£	£	£	£	£	£
1934-35 ..	552,480	403,206	346,821	152,233	94,328	42,535	1,591,612
1935-36 ..	590,000	432,033	365,237	163,208	102,320	49,351	1,713,759
1936-37 ..	644,434	470,541	368,171	178,043	113,219	61,185	1,835,593
Average Revenue per Call—	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.
1934-35 ..	11.88	10.76	13.60	10.97	12.73	7.77	11.69
1935-36 ..	11.65	10.62	13.43	10.62	12.33	8.06	11.44
1936-37 ..	11.68	10.93	13.51	10.84	12.83	9.33	11.67

The number of trunk line calls during 1936-37 increased by nearly two millions, or by 5.01 per cent. compared with the figures for the previous year, while the average revenue per call increased by 0.23d.

2. *Revenue from Telephones.*—Particulars regarding the revenue from telephone services are included in tables in § 1.

§ 6. Radio Telegraphy and Telephony.

1. *General.*—A statement in regard to the initial steps taken to establish radio telegraphy in Australia was given in Official Year Book No. 18, p. 343.

2. *Wireless Licences.*—Under the Wireless Telegraphy Act and Regulations, no wireless station can be installed or operated without a licence from the Postmaster-General. Licences are issued for the following :—(a) Coast Stations, which are operated at various points around the coast and in Papua and New Guinea by Amalgamated Wireless (Australasia) Ltd., under agreement with the Commonwealth; (b) Ship Stations (regulations under the Navigation Act 1935 require that all ships registered in Australia and engaged in interstate traffic shall have an efficient radio telegraph installation, which in the case of cargo vessels of less than 750 tons gross register shall include apparatus for automatically transmitting prescribed signals of distress, these vessels not being required to carry fully qualified operators; similar legislation, designed to ensure the safety of life at sea, has also been introduced by the Governments of New South Wales, Victoria and Queensland); (c) Land Stations to be operated where no telegraph or telephone facilities exist; (d) Broadcasting Stations, other than those of the National Broadcasting Service; (e) Broadcast Listeners' Receiving Sets; (f) Portable Stations on motor cars, etc.; (g) Aircraft Stations; (h) Experimental Stations; and (i) Special Stations, i.e., stations other than those named above.

The following table shows the number of each class of licence issued in each State, etc., during the year 1936-37 :—

WIRELESS LICENCES, 1936-37.

Station Licence.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Total Aust.	Papua and New Guinea	Grand Total
Coast ..	2	1	6	1	5	3	1	..	19	9	28
Ship ..	92	89	15	10	4	1	1	..	212	..	212
Aircraft ..	5	9	5	1	2	..	1	..	23	..	23
Land (b) ..	8	3	13	13	45	7	29	..	137	26	163
Broadcasting (a) ..	25	18	16	6	7	6	..	1	79	1	80
Broadcast Listeners' ..	356,859	288,717	101,324	98,017	61,151	29,780	116	1,433	938,297	34	938,331
Experimental ..	676	481	227	176	114	50	..	8	1,732	5	1,737
Portable ..	13	6	6	3	2	1	7	..	38	14	52
Special ..	34	25	10	..	3	..	..	..	72	..	72
Total Licences Issued :	357,714	289,349	101,641	99,127	61,333	29,818	155	1,442	940,009	39	940,048

(a) There were also twenty-one stations operated by the National Broadcasting Service, including a short-wave station (V.L.B. Lyndhurst, Victoria). (b) In addition to the licensed stations there were two operated by the Postmaster-General's Department, viz., Wave Hill (N.T.) and Carnoolweal (Q.), and five low powered stations established by the Government of the Territory of New Guinea.

Similar particulars to the above in relation to the year 1937-38 will be found in the Appendix to this volume.

3. **Broadcasting.**—(i) *The National Broadcasting Service.* The technical services for the National Service are provided by the Postmaster-General's Department, and the programmes by the Australian Broadcasting Commission, a body consisting of five members, constituted under the provisions of the Australian Broadcasting Commission Act. The fee for a broadcast listener's licence is 21s. per annum for a receiver situated approximately within 250 miles from a station of the National Service, and 15s. per annum in the territory beyond. Licences are issued free to blind persons. The Commission receives 12s. from each fee, the Department retaining the balance.

The National Broadcasting System of the Commonwealth at present comprises 23 transmitting stations, as follows:—2FC Sydney, 2BL Sydney, 2NC Newcastle, 2CO Corowa, 2NR Lawrence, 2CR Cumnock, 3LO Melbourne, 3AR Melbourne, 3GI Sale, 3WV Dooen, 4QG Brisbane, 4QR Brisbane, 4RK Rockhampton, 4QN Townsville, 5CL Adelaide, 5AN Adelaide, 5CK Crystal Brook, 6WF Perth, 6WA Minding, 6GF Kalgoorlie, 7ZL Hobart, 7NT Kelso, and Short Wave Station 1LR Lyndhurst. Contracts are current for the supply of two further stations for installation in Perth and Hobart respectively to permit the production of alternative programmes in those cities, and stations are also being erected at Canberra, A.C.T., and at Dalby, Qld. With the exception of VLR, all transmitters operate within the frequency band of 550 k.c. to 1,500 k.c.

Country regional stations normally radiate programmes from the central studio of the nearest capital city. To permit of this each such station is joined to its respective studio by a high quality programme transmission circuit, the total length of such circuits in use in the Commonwealth being 3,158 miles. A Commonwealth-wide system of network broadcasting is being more and more utilized, the total length of interstate lines in use permanently for this purpose for the National Broadcasting Service alone being 3,912 miles. As occasion demands, wide-band telephone circuits to the extent of several thousands of miles are employed to supplement this interstate network. Programme carrier channels having a 7,500 cycle band width and operating on the lower side band of a 42.5 k.c. carrier are extensively employed.

Short-wave programmes radiated by overseas stations, particularly from the Empire stations at Daventry, are received regularly at the departmental high frequency receiving station at Mont Park, and are re-radiated over the national network when the subject matter is of sufficiently wide local interest.

(ii) *Commercial Broadcasting Stations.* The services of other broadcasting stations are conducted by private enterprise under licence from the Postmaster-General. Licences are granted on conditions which ensure satisfactory alternative programmes for listeners. The fee for a broadcasting station licence is £25 and the maximum period of a licence is three years, although they may be renewed annually at the discretion of the Postmaster-General. Licensees of these stations do not share in the listeners' licence fees, but rely for their income on revenue received from the broadcasting of advertisements and other publicity. The number of these stations in operation at 30th April, 1938, was 93, and there are several stations in prospect.

(iii) *Radio Inductive Interference.* The Postmaster-General's Department takes active measures to suppress, so far as possible, interference with broadcast reception resulting from the radiations of energy from electric machinery and appliances. During the year, the Department received 8,082 complaints of interfering noises, which, in all but a few instances, were satisfactorily disposed of.

(iv) *Prosecutions Under the Wireless Telegraphy Act.* During the year 3,429 persons were convicted for using unlicensed broadcasting receiving equipment, the total fines amounted to £5,780.

(v) *World Licence Distribution.* The following table shows the number of listeners' licences and the ratio of licences to population in the leading "radio" countries. These particulars, compiled from figures supplied by L'Union Internationale de Radiodiffusion, have been obtained from the Annual Report of the Australian Broadcasting Commission.

WORLD LICENCE DISTRIBUTION, 31st DECEMBER, 1936.

Country.	Listeners' Licences.	
	Total.	Per 100 of Population.
United States of America	24,269,000 (a)	18.90
Denmark	652,255	17.60
Great Britain	7,914,500	17.13
Sweden	944,487	15.11
New Zealand	231,364	14.60
Australia	887,015	13.09
Canada	1,380,500 (b)	12.29
Germany	8,167,957	12.22
Netherlands	989,115	11.84
Switzerland	404,332	11.42
Belgium	890,323	10.73
South Africa	160,000	9.25
Austria	593,815	8.81
Norway	440,251	8.29
Argentine Republic	950,000 (a)	7.79
France	3,218,541	7.68
Czechoslovakia	928,112	6.30
Latvia	96,331	4.90
Finland	177,376	4.73
Hungary	365,354	4.06
Estonia	37,800	3.35
Ireland (Eire)	98,949	3.34
Japan	2,870,986 (a)	2.93
Soviet Union	3,760,400	2.21
Poland	677,404	2.02
Palestine	20,388	1.57
Mexico	250,000	1.49 (c)
Italy	625,350	1.44

(a) Listeners are not licensed and the totals shown are estimates only of the number of receiving sets in operation. (b) At 31st March, 1937. (c) Exclusive of native population.

Australia ranks sixth amongst countries of the world in relation to licences per 100 of population.

4. Oversea Communication by Wireless.—(i) *Beam Wireless*. The Beam Wireless stations provided for under the agreement between the Commonwealth Government and Amalgamated Wireless (Australasia) Ltd. were completed early in 1927, and a direct beam wireless service to England was established on 8th April, 1927. A similar service to North America was opened on 16th June, 1928. Satisfactory communication is maintained daily over a period of hours, and the services are being well patronized by the public. A comparison of the rates charged for "Beam" and Cable messages is given in § 4, Overseas Cable and Radio Communication. Particulars of international traffic via "Beam" are given in par. (iv) (a) following.

(ii) *Overseas Wireless Telephone Service*. The volume of business transacted over the radio telephone services terminating in Australia continues to grow at a satisfactory rate and the number of calls connected between the opening of the first of these services on the 30th April, 1930, and the 30th April, 1938, was 17,664. Of this total 10,060 calls originated in Australia.

Thirteen thousand and thirty-one calls were completed over the Anglo-Australian service, 4,407 on the Australia-New Zealand channel, 38 between Australia and Java, 94 between Australia and Rabaul, and 94 between Australia and the liners "Awatea" and "Empress of Britain", while those vessels were at sea. The radio telephone service between Australia and Rabaul was opened on the 18th October, 1937, whilst service to the liner "Empress of Britain" was maintained only during her presence in Australian waters from the 28th March, 1938, to the 27th April, 1938.

The Australian telephone subscriber now has access to 34,500,000 telephones, or approximately 93 per cent. of the world's total. Telephone communication is now practicable between the Commonwealth and 52 other countries, as well as two Atlantic liners and the M.V. "Awatea" which trades between Australia and New Zealand.

(iii) *Wireless Communication in the Pacific.* New Zealand, the territories of New Guinea and Papua and the various small islands in the Pacific Ocean are served by a comprehensive system of wireless communication. In New Guinea and Papua, nine wireless telegraphy stations are established under an agreement between the Commonwealth and Amalgamated Wireless (Australasia) Ltd. for communication with ships at sea, and for inter-communication. Three of these stations Rabaul (New Guinea) and Port Moresby and Samarai (Papua) also have direct communication with the mainland of Australia. In addition, there are in New Guinea several low powered transmitters established by the New Guinea Administration for interior communication, while in both Papua and New Guinea several small stations are operated by gold exploration parties, missionary societies and others.

Direct communication by wireless telegraphy exists between Sydney and Suva (Fiji) and Noumea (New Caledonia), while Wellington (New Zealand) is linked with Sydney by wireless telephone. Other wireless telegraph stations in the Pacific include Auckland, Awarua and Chatham Islands (New Zealand), Port Vila (New Hebrides), Apia (Samoa), Tulagi and Vanikoro (Solomon Islands), Nauru (Marshall Islands), Ocean Island (Gilbert and Ellice Group), Truk and Yappu (Caroline Islands), and Guam (Marian Islands).

(iv) *Radiotelegraphic Traffic. (a) International.* The following statement shows particulars of international traffic "via Beam" to and from United Kingdom and other places during the year ended 30th June, 1937:—

RADIO TRAFFIC.—INTERNATIONAL, YEAR ENDED 30th JUNE, 1937.

Class of Traffic.	Number of Words Transmitted to—			Number of Words Received from—		
	United Kingdom.	Other Places.	Total.	United Kingdom.	Other Places.	Total.
Ordinary (a) ..	1,712,635	739,006	2,451,641	1,404,508	290,346	1,694,854
Deferred (Ordinary) ..	1,100,111	517,582	1,617,693	1,179,200	103,320	1,342,610
Government (a) ..	111,155	24,376	135,531	114,718	3,518	118,236
Press (including deferred press) ..	279,959	25,872	305,831	1,896,087	96,932	1,993,019
Daily letter and greeting telegrams ..	1,872,383	881,888	2,754,271	1,367,186	347,768	1,714,954
Total ..	5,142,246	2,188,724	7,330,970	5,961,798	901,884	6,863,682

(a) Includes Code telegrams.

(b) *Coast Stations.* Particulars of the traffic handled by the several coast stations during the year 1936-37 are as follows:—

RADIO TRAFFIC.—COAST STATIONS, 1936-37.

Particulars.

State or Territory.	Total Paying Words.	Messages.			
		Paying.	Service.	Weather.	Total.
	No.	No.	No.	No.	No.
New South Wales	1,780,447	96,165	7,944	6,808	110,917
Victoria	91,361	10,028	64	1,494	11,586
Queensland	219,085	19,081	436	4,269	23,786
South Australia	68,493	6,329	685	780	7,794
Western Australia	147,564	10,941	1,453	3,942	16,336
Tasmania	84,100	5,278	704	2,903	8,885
Northern Territory	112,593	3,327	828	3,300	7,455
Australia	2,503,643	151,149	12,114	23,496	186,759
Papua	601,362	27,895	830	1,020	29,745
Grand Total	3,105,005	179,044	12,944	24,516	216,504

(c) *Island Stations.* Particulars of the island radio traffic dealt with during the year 1936-37 are given in the following table:—

RADIO TRAFFIC.—ISLAND STATIONS, 1936-1937.

Particulars.	To Australia.	From Australia.	Inter- Island.	Ship.	Total.
	No.	No.	No.	No.	No.
Messages	29,423	23,325	21,513	2,750	77,011
Words	543,707	377,903	302,482	33,448	1,257,540

(v) *Proficiency Certificates.* Every transmitting station, in respect of which a licence is issued, must be operated by a person holding a certificate of proficiency.

During the year ended 30th April, 1938, 512 Operator's Certificates of Proficiency were awarded.

The number of each class were: Commercial—First Class, 41; Second Class, 54; Third Class, 113; Aircraft—First Class, Nil; Second Class, 2; Third Class, 13; Broadcast Station, 62; and Amateur, 227.

CHAPTER VI. EDUCATION.

§ 1. Evolution of Educational Systems in Australia.

1. *Educational Systems of the States.*—(i) *Place of New South Wales in Australian Education.* The first settlement in Australia being in New South Wales, it is but natural that Australian Education should have had its beginning in that State. In the evolution of educational method and system in Australia also, New South Wales has played a leading part, and has had practically a dominating influence. The subject is dealt with in some detail in No. I. and No. II. issues of the Official Year Book, but it is not repeated in the present volume. (See also par. 2 hereunder.)

(ii) *Educational Systems of other States.* A more or less detailed account of the origin and development of the educational systems of the other States also appears in No. I. and No. II. issues of the Year Book.

(iii) *Medical Inspection of State School Children.* See Chapter IX.—Public Hygiene.

2. *Later Development in State Educational Systems.*—Issues of the Official Year Book up to No. 22 contained an outline of later developments of the educational systems of the various States, but owing to the necessity for economy it was not found possible to repeat this information in subsequent volumes.

Reference, however, may be made here to an interesting experiment tried in New South Wales in 1932. For many years, special consideration has been given to the backward child, but it has recently been recognized that, at the other extreme, the pupil of outstanding ability was also entitled to some special consideration. Children of superior ability were, therefore, selected by means of psychological and scholastic tests and grouped in classes where every opportunity is given them to progress at a rate in accordance with their natural ability. Special sixth classes for boys and girls were established at two of the metropolitan schools in 1932, and the scheme was extended in 1933 to include special fifth classes. Thus, on completion of the primary course, the pupils will have the benefit of two years in special classes. The results achieved by these classes were sufficiently favourable to warrant the establishment of additional classes at Artarmon Public School in 1936.

As pointed out in previous issues, the educational system of New South Wales may now be considered as a more or less homogeneous entity, the various stages succeeding one another by logical gradation from kindergarten to university. In the other States development is proceeding on somewhat similar lines, activity in this respect being greatly helped by interstate conferences of directors of education and of inspectors and teachers as well as by the Council alluded to in par. 4 hereunder. At the Eleventh Biennial Conference of Directors of Education held in Brisbane in April, 1936, a comprehensive agenda was discussed, including matters affecting teachers generally, special schools, extra-curricular activities, primary education, vocational guidance and unemployment, radio and visual education, school libraries, school medical services, and the raising of the school age.

3. *School Age.*—The statutory school age for children in each State, set out briefly, is as follows:—New South Wales, 7 to 14 years; Victoria, 6 to 14 years; Queensland, 7 to 14 years; South Australia, 6 to 14 years; Western Australia, 6 to 14 years; and Tasmania, 7 to 14 years.

It is provided in some States that in cases where any child is living outside stated distances from a State school, the age at which the child must commence school is increased. Provision is also made that a scholar having attained a certain standard may leave school before reaching the statutory leaving age.

At the 1936 Conference of Directors of Education a resolution was passed urging the necessity of raising the compulsory school leaving age to 15 years. This resolution was subsequently submitted to a conference in Sydney of Ministers of Education who agreed to recommend to their respective Governments legislation to implement the proposal by the year 1940.

4. **Australian Council for Educational Research.**—This Council, which was constituted on 10th February, 1930, is financed by the Carnegie Corporation of New York which has undertaken to provide payments at the rate of £7,500 a year for a ten year period. The Council consists of nine members, of whom six are elected by State Institutes for Educational Research which have been established in each of the Australian States. One full meeting of the Federal body is held each year. The publications of the Council appear in the form of a Research Series published by the Melbourne University Press. Up to the end of 1937, 50 numbers had appeared. Since its inception the Council has granted 174 applications for assistance to persons who wish to carry out investigations, or have their works published. During the same period, the Council itself initiated a number of investigations, at the present time for example it has in Victoria a representative committee inquiring into the problems of education at the secondary stage. Authorized expenditure on grants to the end of June, 1937, amounted to £14,773. In addition to organizing and supporting research, the Council acts as a centre for the collection and dissemination of information concerning Australian education. The Council was instrumental in arranging for the survey of Australian libraries conducted for the Carnegie Corporation during 1934 by Mr. Ralph Munn and Mr. E. R. Pitt. The Council published the report based on this survey. As a result of this report there are strong movements in several States aiming at the removal of the serious deficiencies revealed by the report in existing library services in Australia. In conjunction with the New Education Fellowship of England, the Council arranged an important educational conference in Australia in August and September 1937, and twenty-one leading educationalists from twelve different countries addressed the meetings which were held in all capital cities. The Conference had over 9,000 full members and attracted a great deal of public interest. The Council is recognized, by the Institute of Intellectual Co-operation, Paris, as the National Centre for Educational Information in Australia. It also acts as the Australian representative of the Institute of International Education, New York. The headquarters of the Council are situated at 145 Collins-street, Melbourne.

§ 2. State Schools.

1. **General.**—The State Schools, or, as they are sometimes termed, the “public” schools, of Australia comprise all schools directly under State control, in contradistinction to the so-called “private” schools, the bulk of which, though privately managed, nevertheless cater for all classes of the community. Separate information regarding Technical Education is given in § 6, but the junior technical schools are included hereunder. The returns include figures relating to correspondence schools as well as subsidized schools, but evening schools and continuation classes, where such are in existence, are not included, but are dealt with separately in par. 4 (iv) hereinafter.

2. **Returns for Year 1936.**—(i) **General.** The following table shows the number of State Schools, together with the teachers employed and the average enrolment and attendance in each State during the year 1936 :—

STATE SCHOOLS.—RETURNS, 1936.

State or Territory.	Schools.	Teachers.	Enrolment.	Average Attendance.	Percentage of Attendance on Enrolment.
New South Wales (a) ..	3,415	12,657	353,870	310,450	87.7
Victoria	2,749	8,493	233,463	207,535	88.9
Queensland	1,690	4,359	146,984	118,241	80.4
South Australia ..	1,067	2,924	80,222	73,854	92.1
Western Australia ..	863	2,367	58,299	52,973	90.9
Tasmania	515	1,354	32,923	28,694	87.2
Northern Territory (b) ..	8	18	460	401	87.2
Australia	10,307	32,172	906,221	792,148	87.4

(a) Including Australian Capital Territory.

(b) Year ended 30th June, 1937.

It would appear from the steadiness of the returns in recent years that the percentage of attendance on enrolment is approaching its maximum under present conditions in Australia. Recurring epidemics of contagious diseases, minor illnesses, bad weather and long distances are all serious factors limiting the full attendance of pupils at school.

The methods of calculating enrolment are not quite identical throughout the States, but the figures may be taken as representing the averages of the weekly enrolment of individual pupils. In the case of Queensland, however, the number of individual pupils attending school at any time during the year is the only figure available, and consequently the percentage of attendance is not comparable with those of the other States. The matter of securing uniformity in this respect has been under consideration for some time, and the Educational Research Council, alluded to in § 1, 4 *ante*, is devoting attention to the question of securing greater uniformity in methods of collection and presentation of educational data generally.

(ii) *Schools in the Australian Capital Area.*—(a) *General.* During the year 1936 thirteen State Schools were in operation in the Australian Capital Territory. The individual pupils enrolled numbered 1,639 and the average attendance 1,289. Cost of upkeep amounted to £17,070. By arrangement with the Federal Government these schools are conducted by the New South Wales Education Department in the same way as the ordinary State Schools, the Department being recouped for expenditure. Ample provision has been made for both primary and secondary education, and this will be increased to meet requirements. The figures quoted, other than expenditure, do not include enrolment, etc., at the Trade School and the Evening Continuation school.

(b) *The Canberra University College* (see § 5 hereinafter).

3. *Average Attendance.*—The average attendance at the State Schools in Australia is shown below for the year 1891 and at varying intervals to 1936:—

STATE SCHOOLS.—AVERAGE ATTENDANCE.—AUSTRALIA.

Year.	Total Population. (a)	Average Attendance.	Year.	Total Population. (a)	Average. Attendance.
1891	3,421	350,773	1932	6,605	818,566
1901	3,825	450,246	1933	6,657	805,334
1911	4,574	463,799	1934	6,706	792,892
1921	5,511	666,498	1935	6,753	790,186
1931	6,553	817,262	1936	6,807	792,148

(a) At 31st December, in thousands.

It is possible, for Census years, to relate with reasonable accuracy the average attendance of scholars at State Schools to the number of children who are approximately of school age. For this purpose the ages 5 to 15 years, both included, have been taken and the average attendance per thousand children was:—1891, 455; 1901, 464; 1911, 477; 1921, 544; and 1933, 585. Although other factors might have affected the results in a minor degree it would appear that considerable improvement has taken place in school attendance during the last twenty years.

4. *Distribution of Educational Facilities.*—(i) *In Sparsely-settled Districts.*—(a) *General.* The methods adopted in the various States to carry the benefits of education into the remotest and most sparsely-settled areas are set out in some detail in previous issues of the Official Year Book (see No. 22, pp. 430–31). (b) *Correspondence Teaching.* Teaching by correspondence has been adopted to meet the needs of children out of reach of the ordinary means of education, including those incapacitated from attending school by reason of physical ailment. Nearly 18,400 children received instruction in this way during 1936, the respective numbers in each State being New South Wales, 7,463; Victoria, 1,164; Queensland, 5,748; South Australia, 1,759; Western Australia, 1,863; Tasmania, 334. In the Northern Territory, 37 children received tuition by correspondence during the year.

(ii) *Centralization of Schools.* The question of centralization of schools adopted so successfully in America and Canada has received some attention in Australia, and particularly in New South Wales. It is recognized that a single adequately staffed and well equipped central institution can give more efficient teaching than a congeries of small scattered schools in the hands of less highly trained teachers, and the small schools in some districts were therefore closed and the children conveyed to the central institution. The principle was first adopted in New South Wales in 1904, and in 1936 a sum of £20,530 was expended in boarding allowance and conveyance to central schools. Cost of conveyance to State Schools in Victoria during 1936-37 was returned as £13,595. In South Australia the sum of £4,004 was disbursed in connexion with travelling expenses of school children in 1936, while £15,945 was spent in Western Australia during 1935-36, and £7,322 in Tasmania in 1936-37. (It may be pointed out, however, that the parents are often reluctant to part with the small schools which form as it were, "heart centres" in their little community, while the kindly help of the teachers is a great asset in the social and intellectual life of the districts served by the schools.)

(iii) *Education of Backward and Defective Children.* This subject was alluded to at some length in preceding issues of the Official Year Book (see No. 22, pp. 431-2).

(iv) *Evening Schools.* Evening Continuation Schools have been in existence for many years in some of the States, but their progress has been uncertain. The aim of these schools is to provide a means of furthering the education of those who have left school at the termination of the primary course. Practical and cultural subjects are combined in the curriculum to be of assistance to those attending in their occupations and their civic life. In New South Wales the 36 Evening Continuation Schools had an average weekly enrolment in 1936 of 4,177 and an average attendance of 3,250. The schools are divided into three groups, junior technical, domestic science, and commercial. Attendances at the schools for boys numbered 2,412, and at those for girls 838. Unemployed pupils receive free tuition, and all fees are refunded to others with a satisfactory record of attendance. In Western Australia evening continuation classes were held at 23 centres in 1930, with an average enrolment of 2,777 pupils, but the classes were discontinued at the end of that year and preparatory technical classes were substituted wherever there was a technical school in operation.

(v) *Higher State Schools.* In all the States higher schools have been established which provide advanced courses of instruction for pupils who have completed the primary grades. Reference to the development of these schools will be found in preceding Official Year Books (see No. 22, pp. 433-4).

(vi) *Agricultural Training in State Schools.* Extended reference to the methods adopted in the teaching of agriculture in State Schools was incorporated in preceding Official Year Books (see No. 22, pp. 434-7).

5. *Teachers.*—The number of teachers in the State Schools during 1936 is shown in the following table. The figures are inclusive of students in training and teachers of subsidized schools :—

STATE SCHOOLS.—TEACHING STAFF, 1936.

State or Territory.	Males.	Females.	Total.
New South Wales	6,072	6,585	12,657
Victoria	3,871	4,622	8,493
Queensland	2,317	2,042	4,359
South Australia	1,457	1,407	2,924
Western Australia	875	1,492	2,367
Tasmania	405	949	1,354
Northern Territory	5	13	18
	15,002	17,170	32,172

6. Training Colleges.—The development of the training systems of the various States was referred to at some length in earlier issues of the Year Book (see No. 22, pp. 437-9).

7. Expenditure.—(i) *Maintenance—All Schools.* The net expenditure on maintenance in all grades of schools, excepting senior technical schools and in Victoria and Tasmania junior technical schools, and the cost per head of average attendance for the five years ended 1936 are shown in the following table. The figures do not include expenditure on buildings, which is given separately in a subsequent table. In the case of Queensland allowance has been made in calculating cost per head of average attendance for the number of State scholarship holders attending non-State schools. In all expenditure tables the figures for Victoria and Western Australia relate to the financial year ending six months later than the stated calendar year.

STATE SCHOOLS.—EXPENDITURE ON MAINTENANCE.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Ter.	Total.
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TOTAL (INCLUDING SECONDARY SCHOOLS).

	£	£	£	£	£	£	£	£
1932	3,529,989	2,099,758	1,251,037	702,306	523,010	206,957	4,471	8,317,528
1933	3,267,223	2,098,686	1,296,206	703,722	543,517	203,860	4,303	8,117,517
1934	3,312,614	2,163,111	1,312,758	666,593	575,340	215,105	3,897	8,249,418
1935	3,523,552	2,335,096	1,235,724	721,275	625,847	250,759	5,594	8,007,847
1936	3,642,321	2,528,177	1,261,401	761,847	674,083	268,579	5,821	9,142,280

PER HEAD OF AVERAGE ATTENDANCE.

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1932	10 18 8	9 14 4	10 10 6	8 19 4	9 15 4	6 10 11	15 19 4	10 3 3
1933	10 6 6	9 14 9	11 10 10	9 1 0	9 19 2	6 15 11	13 12 4	10 1 7
1934	10 13 9	10 5 10	11 11 8	8 14 7	10 15 1	7 6 9	14 5 6	10 8 1
1935	11 6 8	11 3 7	10 18 2	9 12 1	11 18 2	8 12 0	18 2 1	11 0 2
1936	11 14 8	12 3 8	10 13 4	10 6 4	12 14 6	9 4 3	13 3 5	11 10 8

The expenditure on State Schools which had been on a rising scale for some years in all States reached its maximum of £10,087,570 in 1929. The economic depression was responsible for heavy reductions in subsequent years, but the expenditure is again expanding.

(ii) *Maintenance—Secondary Schools.* The figures given in the preceding table refer to expenditure on maintenance of all State primary and secondary schools, exclusive of technical colleges. It has been thought desirable by the State Education Departments to give separate information in regard to the cost of secondary education. The difficulty of making any satisfactory allocation of the kind, however, will be understood when it is realized that both elementary and higher education are in some instances given in the same school and by the same teacher. Unfortunately too, the term "secondary" does not indicate the same thing in all States. It might be mentioned here that similar difficulties arise in connexion with the apportionment amongst the various branches of expenditure on administration, inspection and the training of teachers. The figures quoted in regard to cost hereunder have been extracted from the Reports of the State Education Departments, and are subject to the qualifications above enumerated.

STATE SECONDARY SCHOOLS.—EXPENDITURE ON MAINTENANCE, 1936.

	State.	Cost.	Cost Per Head of Population.
		£	s. d.
New South Wales		562,656	4 3
Victoria		349,518	3 9
Queensland		134,217	2 9
South Australia		108,204	3 8
Western Australia		(a) 135,250	6 0
Tasmania		27,255	2 4

(a) Year 1935-36.

The figures in all cases are exclusive of cost of buildings. In the case of Victoria the total includes the expenditure on "intermediate" education amounting (excluding administration costs) to £101,181. For Queensland, the figure quoted does not include the cost of the Agricultural High School and College, which amounted in 1936 to £20,573. For Western Australia the total includes £82,070 on account of "post primary" education.

(iii) *Buildings.* Expenditure on school buildings exclusive of Technical Colleges in each of the years quoted was as follows :—

STATE SCHOOLS.—EXPENDITURE ON BUILDINGS.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Ter.	Total.
	£	£	£	£	£	£	£	£
1932	178,532	51,947	152,792	33,822	40,424	4,718	122	462,357
1933	360,194	94,850	213,181	52,697	52,955	9,926	156	783,959
1934	300,999	104,591	285,358	44,120	66,515	24,973	54	826,610
1935	406,662	132,744	347,735	60,656	102,634	53,589	897	1,104,917
1936	377,403	167,428	211,169	69,627	56,191	60,810	726	943,354

The totals for the various States in 1936 include the following amounts expended from loan and unemployment relief funds :—New South Wales, £200,680; Victoria, £69,085; Queensland, £122,496; South Australia, £38,992; Western Australia, £28,607; and Tasmania, £42,523.

(iv) *Total.* The net total cost during the year 1936 was as follows :—

STATE SCHOOLS.—NET TOTAL COST, 1936.

Item.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Ter.	Total.
	£	£	£	£	£	£	£	£
Net cost of education, including buildings ..	4,019,724	2,695,605	1,472,630	831,474	730,274	329,389	6,547	10,085,643

The figures in this and the preceding tables refer to all grades of State Schools (with the exception of senior technical schools and in Victoria and Tasmania junior technical schools). Including buildings, the net cost per scholar in average attendance for the whole of the State schools in Australia amounted in 1936 to £12 14s. 6d., as compared with £4 9s. 3d. in 1901.

8. **School Banking.**—With the object of inculcating principles of thrift amongst the children, agencies of the Savings Banks have been established at many of the schools throughout the Commonwealth. Particulars for each State at 30th June, 1937, were as follows :—

SCHOOL SAVINGS BANKS AT 30th JUNE, 1937.

State.	Agencies.	Depositors.	Amount on Deposit.	Average for Depositor.
	No.	No.	£	£ s. d.
New South Wales	2,746	181,187	259,131	1 8 7
Victoria	2,758	198,855	291,319	1 9 4
Queensland	1,454	73,090	171,491	2 6 11
South Australia (a)	1,202	74,535	131,409	1 15 3
Western Australia	775	35,409	83,200	2 7 0
Tasmania	355	29,735	45,179	1 10 5
Northern Territory	5	205	156	0 15 2
Total	9,295	593,016	981,885	1 13 1

(a) At 31st December, 1936

§ 3. Private Schools.*

1. **Returns for 1936.**—The following table shows the number of private schools, together with the teachers engaged therein, and the enrolment and average attendance in 1936 :—

PRIVATE SCHOOLS, 1936.

State or Territory.	Schools.	Teachers.	Enrolment.	Average Attendance
New South Wales	745	4,786	94,409	83,210
Victoria	519	2,556	73,084	64,415
Queensland	221	1,501	33,582	28,830
South Australia	170	909	13,601	12,332
Western Australia	153	627	13,916	12,248
Tasmania	64	328	5,549	4,884
Northern Territory (a)	1	5	137	107
Total	1,873	10,712	234,278	206,026

(a) Year ended 30th June following.

The figures for Queensland include the returns from Grammar Schools, of which there are four—five for boys and three for girls, with an enrolment of 1,000 boys and 489 girls. These schools are governed by boards of trustees, partly nominated by the Government, and partly by the subscribers to the funds. The trustees make regulations regarding the fees of scholars, the salaries of teachers, and generally for the management of the schools. The Government endowment received in 1936 amounted to £11,008. In addition, a sum of £11,085 was received by way of fees for the tuition of State scholarship holders. The Grammar schools are inspected annually by officers of the Department of Public Instruction.

* Private schools include all schools not wholly under State control. The term "private," though popularly applied, is, of course, a misnomer.

2. **Growth of Private Schools.**—The enrolment and average attendance at private schools in 1891 and at varying intervals to 1936 were as follows :—

PRIVATE SCHOOLS.—ENROLMENT AND ATTENDANCE.

Year.	Enrolment.	Average Attendance.	Year.	Enrolment.	Average Attendance.
1891	124,485	99,588	1932	220,723	188,912
1901	148,659	120,742	1933	222,625	189,984
1911	160,794	132,588	1934	223,538	196,927
1921	198,688	164,073	1935	229,525	200,539
1931	221,387	189,665	1936	234,278	206,026

3. **Registration of Private Schools.**—Conditions in regard to the registration of private schools were alluded to in previous Year Books (*vide* No. 18, p. 451).

§ 4. Free Kindergartens.

The following information regarding Free Kindergartens has been compiled from particulars supplied by the principals of the chief institutions or the organizing secretary in each State, except in the case of Western Australia where the details were furnished by the Education Department :—

FREE KINDERGARTENS, 1937.

State.	No. of Schools.	Average Attendance.	Permanent Instructors.	Student Teachers.	Voluntary Assistants.
New South Wales	16	801	41	63	50
Victoria	32	1,526	82	37	312
Queensland	6	(a) 552	8	25	3
South Australia	10	386	16	27	40
Western Australia	7	391	10	12	13
Tasmania	2	81	5	1	4
Total	73	3,737	162	165	422

(a) Estimated.

The kindergartens in the above table are all in the metropolitan areas of the various States, with the exception of three country centres, two at Geelong and one at Ballarat, which are included in the Victorian returns. The average attendance at these country schools in 1937 was 146 children. In each capital city there is a training college and the number of students in training during 1937 was 70 in Sydney, 37 in Melbourne, 25 in Brisbane, 37 in Adelaide, 13 in Perth, and 2 in Hobart.

The information given above refers to institutions under private kindergarten unions or associations, and is exclusive of the kindergarten branches in the Government schools of the various States.

§ 5. Universities.

1. **Origin and Development.**—A brief account of the origin and development of the Universities in the various States is given in preceding issues of the Official Year Book (see No. 22, pp. 442-3).

2. **Teachers and Students.**—The following table shows the number of professors and lecturers, and the students in attendance at each of the State Universities during the year 1936 :—

UNIVERSITIES.—TEACHERS AND STUDENTS, 1936.

University.	Professors.	Lecturers and Demonstrators.	Students attending Lectures.		
			Matriculated.	Non-matriculated.	Total.
Sydney	49	199	2,789	417	3,206
Melbourne	36	221	(a)	(a)	(b) 3,210
Queensland (Brisbane) .. .	17	87	981	164	1,145
Adelaide	18	113	1,088	937	(c) 2,025
Western Australia (Perth) ..	19	39	818	3	821
Tasmania (Hobart) .. .	8	24	197	53	250

(a) Not available. (b) Exclusive of 241 students at Conservatorium of Music. (c) Exclusive of 262 students at Conservatorium of Music.

The Conservatorium in Sydney, while attached to the Education Department, is not under the control of the University.

3. **University Revenue.**—The revenue of the Universities is derived principally from Government aid, the fees of students, and income from private foundations. The receipts from all sources other than new bequests during the year 1936 are set out in the table below. With the exception of New South Wales, receipts from public examinations are included as University revenue under lecture and examination fees. In South Australia Government grants and income from private foundations include amounts in respect of the Waite Agricultural Research Institute. The returns for Western Australia are exclusive of the private foundations account as these figures are not made available by the University authorities.

UNIVERSITIES.—REVENUE, 1936.

University.	Government Grants.	Lecture and Examination Fees.	Income from Private Foundations.	Other.	Total.
	£	£	£	£	£
Sydney	67,945	79,955	74,147	2,568	224,615
Melbourne	56,950	103,541	31,789 (b)	39,423	231,703
Queensland (Brisbane) .. .	30,210	20,010	18,514	2,322	77,086
Adelaide	56,100	29,886	23,028	6,293	115,307
Western Australia (Perth) (a)	35,475	1,422	1,548	4,586	43,031
Tasmania (Hobart) .. .	13,259	4,506	1,166	770	19,701
Total	259,939	245,320	150,222	55,962	711,443

(a) Excludes revenue on account of bequests, endowments, etc., not taken into general account.

(b) Includes other fees, £12,476; Transfers from union appeal account, £9,700; and concert receipts, £3,027.

The figures in the above table do not include the value of new foundations received during the year which amounted to £5,125 in New South Wales, £10,115 in Victoria, £7,306 in Queensland, £94,893 in South Australia, and £60 in Tasmania.

In preceding issues of the Official Year Book information was given in some detail in regard to the extent to which the Universities have benefited from private munificence. Space will permit of reference to the more important benefactions only herein.

The endowments to the Sydney University include the Challis Fund, £384,059; the G. H. Bosch Fund, £252,035; the P. N. Russell Fund, £102,016; and the Fisher Estate, £42,408. In addition, the University receives a large annual revenue from the trustees of the McCaughey bequest. Excluding the principal of the latter, the credit balances of the private foundations amounted to £1,124,924 on the 31st December, 1936. In 1930 a sum of £100,000 was received from the Rockefeller Foundation in aid of the building and equipment of a clinical laboratory for the medical school. Mr. Sidney Myer's gifts to the Melbourne University amounted to £60,000, while Sir Samuel Gillott, Mr. Edward Wilson (Argus Trust), and Sir Samuel Wilson contributed £41,000, £34,000, and £30,000 respectively. Mr. R. B. Ritchie's gifts for the endowment of a Chair of Economics amounted to £30,000, and a similar sum was received from the Supreme Court Library Fund for the endowment of a Chair of Public Law. Dr. James Stewart founded Scholarships in Anatomy, Medicine and Surgery to the value of £26,000. The Hon. Francis Ormond contributed £20,000 to the University as well as benefactions to Ormond College amounting to considerably over £100,000. Queensland University, to the 28th February, 1938, had received £160,318 from the McCaughey estate, and £33,071 from the Walter and Eliza Hall Trust, while the Hon. T. C. Beirne gave £20,000 in 1935 for the endowment of a chair of Law in Queensland. The permanent site for the University and other land valued at £62,000 were presented by Dr. and Miss Mayne. The chief benefactors to the Adelaide University were Sir Thomas Elder, £100,000; Sir Langdon Bonython, £71,000; Miss M. T. Murray, £45,000; Mr. T. E. Barr Smith, £35,000; Mrs. Jane Marks, £30,000; Edward Neale, £27,000; Mrs. R. F. Mortlock and J. T. Mortlock, £25,000; Family of John Darling, £25,000; R. B. Smith and family, £21,000; and Sir William Mitchell, £20,000. Several valuable properties, in addition to shares which realized £58,450, were also bequeathed to this University by Mr. Peter Waite, the total value of the bequest being estimated at £100,000. Under the will of Sir Winthrop Hackett the University of Western Australia received £425,000, while the late Robert Gladden bequeathed an estate valued at £60,000.

4. University Expenditure.—The principal item of University disbursements consists of salaries. In the following table is given the expenditure incurred during 1936, excluding capital expenditure on buildings:—

UNIVERSITIES.—EXPENDITURE, 1936.

University.	Salaries.	Scholarships and Bursaries.	Buildings and Grounds. (c)	Maintenance, Equipment, &c.(d)	Total.
	£	£	£	£	£
Sydney	172,548	7,053	6,799	33,534	219,934
Melbourne	141,589	8,014	10,092	62,074	221,769
Queensland (Brisbane) ..	48,778	1,177	467	27,859	78,281
Adelaide	(b) 65,980	978	887	46,190	114,041
Western Australia (Perth) (a)	30,144	..	2,525	12,325	44,994
Tasmania (Hobart)	13,575	1,121	774	4,503	19,973
Total	472,614	18,343	21,544	186,491	698,992

(a) Excludes expenditure on account of bequests, endowments, &c., not taken into General Account.
 (b) Includes salaries £16,805 and maintenance and equipment £13,614, in respect of the Waite Agricultural Research Institute. (c) Excluding capital expenditure on new buildings. (d) Including expenses of public examinations for all States other than New South Wales.

Capital expenditure on new buildings during 1936 amounted to £44,221 distributed as follows :—Victoria, £15,390 ; Queensland, £19,036 ; South Australia, £7,309 ; and Western Australia, £2,486.

5. **University Extension.**—Some account of the initiation and progress of university extension is given in preceding Official Year Books (see No. 22, p. 446).

6. **The Canberra University College.**—The question of the establishment of a University at the Australian Capital is still under consideration, and in the meantime a University College has been established under the Canberra University College Ordinance 1929–1936. By virtue of a temporary regulation of the University of Melbourne, which expires on the 31st December, 1940, the College is empowered to provide approved lectures in the subjects of the Arts, Science, Commerce and Law courses in preparation for certain degrees and diplomas of that University. Lectures commenced in 1930 with the aid of several part-time lecturers, and 30 students were enrolled during the year. The curriculum has since been extended and three full-time and fourteen part-time lecturers have been appointed. In 1937 and 1938 the students numbered 134 and 145 respectively. The examinations are conducted by the University of Melbourne.

7. **Workers' Educational Association.**—In 1913 Workers' Educational Associations were formed in all the States of Australia, and later in New Zealand. The movement has for its object the bringing of the University into closer relationship with the masses of the people, and thereby providing for the higher education of the workers in civic and cultural subjects. There are now direct grants from all State Governments except Western Australia. The particulars of grants for classes in 1937 were as follows :—New South Wales, £3,866, 57 classes and 4 study circles ; Victoria, £3,120, 28 tutorial classes, 17 study circles and extension work ; Tasmania, £691, 13 classes ; South Australia, £2,250, 7 tutorial classes, 11 lecture classes, 8 study circles and extension lectures at country centres ; Queensland, £1,650, 19 classes. In addition, the New South Wales Association receives a Government grant for general organizing purposes of £500, paid on the basis of £1 for £1 on subscriptions and donations up to this amount. The Queensland and South Australian Associations received grants of £850 and £240 respectively. The Carnegie Corporation has in recent years shown its interest in the work by allotting substantial grants to the Associations and to the Universities. The principal subjects chosen in all States are Industrial History, Economics, Political Science and Sociology, but there is an increasing number of classes in other subjects such as History, Psychology, Philosophy, Literature, Music, Physiology and Biology. Each University co-operates with the W.E.A. in the formation of a joint committee for tutorial classes, which supervises the work with the assistance of a University officer with the title of Director of Tutorial Classes. In addition to the longer University tutorial classes, many preparatory classes, study circles, and summer schools are organized by the Association, numerous courses of public lectures are delivered, educational conferences promoted, and an extensive book service is spreading educational literature throughout Australia.

§ 6. Technical Education.

1. **General.**—Although provision has been made in all of the States for many forms of technical education, the total provision made would imply that this branch of education has not been regarded as of outstanding importance. As will be seen later the expenditure on technical education for the whole of Australia is comparatively small. In preceding issues of the Official Year Book an outline was given of the origin and development of technical education in each State (see No. 22, pp. 447–51), but considerations of space preclude the inclusion of more up-to-date information in later volumes.

2. **Returns for Year 1936.**—Returns for the year 1936 in regard to enrolments and attendances, etc., in each State are given in the table hereunder :—

TECHNICAL EDUCATION.—ENROLMENTS, ETC., 1936.

State.	Teachers.	Net Enrolments.	Fees Received.
New South Wales	676	21,364	38,020
Victoria (a)	1,038	30,873	69,369
Queensland	445	15,189	16,913
South Australia	249	14,132	13,350
Western Australia	155	9,789	2,634
Tasmania (a)	113	1,602	1,790
Total	2,676	92,949	142,076

(a) Includes junior enrolments, viz., 8,528 in Victoria and 529 in Tasmania, as teaching staff and expenditure cover both senior and junior sections.

Figures for earlier years will be found in preceding volumes. Owing to the considerable differences in scope and methods in the States, and in the presentation of the returns in connexion therewith, effective comparison of the results is somewhat difficult. The practice which has been in operation for several years of permitting students unable to pay fees to defer payment was continued during 1936. As a result of improved conditions the number applying for this concession is steadily diminishing. In Victoria, school councils are empowered to grant, up to 10 per cent. of the number of fee-paying students, free admission to classes to qualified unemployed applicants whose parents are unable to afford the necessary fees. Towards the end of the year 1931 the Education Department in Queensland, in conjunction with the Department of Labour and Industry, established a series of free classes in various centres for unemployed young men and women, and these classes were continued in 1936.

3. **Expenditure on Technical Education.** The expenditure on technical education in each State for the year 1936 is shown below :—

TECHNICAL EDUCATION.—EXPENDITURE, 1936.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
	£	£	£	£	£	£	£
1936 { (a)	187,132	319,785	77,696	53,329	24,161	19,420	681,523
(b)	55,098	38,479	3,791	843	338	122	98,671

(a) Maintenance.

(b) Buildings.

In addition to the amount shown above for Victoria, fees collected in that State totalling £69,369 were retained and spent by the Technical School Councils. Similar receipts in the other States were practically all paid into Consolidated Revenue, and should be deducted from the above figures to obtain the respective net expenditures.

The expenditure on maintenance for technical education in 1936 amounted to 2s. od. per head of the population of Australia, as compared with 26s. 11d. per head expended in maintenance for primary and secondary education.

§ 7. Business Colleges and Shorthand Schools.

There has been a considerable development in recent years both in the number and scope of privately conducted institutions which aim at giving instruction in business methods, shorthand, typewriting, the use of calculating machines, etc. Particulars for all States, so far as they are available, are given in the following table. Owing to the varying methods employed in the States it is not possible to give any comparative figures of enrolment :—

BUSINESS COLLEGES, SHORTHAND SCHOOLS, ETC., 1936.

State.	Schools.	Teachers.	Average Attendance of Students.	
			Males.	Females.
New South Wales	42	272	1,741	4,233
Victoria	13	140	3,239	2,805
Queensland	15	64	221	747
South Australia	13	59	957	1,669
Western Australia	14	69	(a) 1,801	(a) 550
Tasmania	4	26	143	399
Total	101	630	8,102	10,403

(a) Estimated.

The figures for New South Wales and South Australia are exclusive of students instructed at home through the medium of correspondence classes. Particulars regarding fees received in 1936 are available for Western Australia and Tasmania only, the respective figures being £32,708 and £5,692.

§ 8. Miscellaneous.

1. *Scientific Societies.*—(i) *Royal Societies.* In previous issues of the Official Year Book an outline was given of the origin and progress of the Royal Society in each State (see No. 22, pp. 454-5). The accompanying table contains the latest available statistical information regarding these institutions, which in every case have their head-quarters in the capital cities.

ROYAL SOCIETIES.—PARTICULARS, 1937.(a)

Heading.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.
Year of origin	1,866	1,854	1,884	1,853	1,897	1,843
Number of members	280	197	200	151	177	253
Vols. of transactions issued	70	79	48	61	23	71
Number of books in library	36,500	18,000	6,400	8,000	4,470	20,000
Societies on exchange list	353	333	200	272	225	277
Income	£ 1,178	613	189	446	262	265
Expenditure	£ 967	540	152	538	212	272

(a) The Royal Society of Australia, with head-quarters at Canberra, was founded on the 25th July, 1930, and received permission to use its title on the 14th January, 1931. The members, including associates, numbered 85 in 1937. Income and expenditure for the year amounted to £7 and £12 respectively.

(ii) *The Australian and New Zealand Association for the Advancement of Science.* This Association was founded in 1887. Its head-quarters are at Science House, Gloucester-street, Sydney, and meetings are usually held biennially within the various States and in the Dominion of New Zealand. The next meeting will be held at Canberra in January, 1939. The library of the Association contains 4,000 volumes, and is now housed by the Council for Scientific and Industrial Research.

(iii) *Other Scientific Societies.* The Linnean Society of New South Wales, with head-quarters in Sydney, was founded in 1874. The soundness of its present position is due to the benefactions of Sir William Macleay, who during his lifetime and by his will endowed the Society to the amount of £67,000, which has been increased by judicious investment to over £80,000. The Society maintains a research bacteriologist and offers annually 4 research fellowships in various branches of natural history. Four fellowships were awarded in 1937. The library comprises some 14,000 volumes, valued at about £7,000. Sixty-two volumes of proceedings have been issued, and the Society exchanges with some 234 kindred institutions. The ordinary membership at the end of 1937 was 181.

The British Astronomical Society has a branch in Sydney, and in each of the States the British Medical Association has a branch.

In addition to the societies enumerated above, there are various others in each State devoted to branches of scientific investigation.

2. *Libraries.*—(i) *Commonwealth*—(a) *Parliamentary and National Library.* When the Commonwealth Parliamentary Library was created in 1902, it was recognized that at such time as the Australian Capital was established it would be necessary to have available there, for the use of Members, Government Departments and the public, a library sufficient for their requirements, and therefore wider in scope than would be the case with a purely Parliamentary Library. The ideal of a great general library was kept in view, and standard works were systematically acquired. At the same time, the first Library Committee conceived the idea of a National Library for the use and benefit of the people of Australia. The policy was therefore pursued of securing, as far as possible, all works and documents connected with the discovery, settlement and early history of Australia, New Zealand and the Pacific Islands.

In 1909 a valuable collection of *Australiana*, comprising about 10,000 volumes and 6,500 pamphlets, maps, documents and pictures—the library of Mr. E. A. Petherick—was acquired. In 1912 a provision was included in the Commonwealth Copyright Act requiring the publisher of every book, pamphlet, etc., printed in Australia to supply a copy free to the library. In the same year the publication of the *Historical Records* of Australia was begun, and 34 volumes were issued before publication was temporarily suspended in 1926.

The rapid development of the Australian and National sections of the Library persuaded the Library Committee in 1923 that the title "Commonwealth National Library" should be given to those sections, and that at Canberra a division of the Parliamentary and National collections should be effected, the former to be housed in Parliament House, the latter in a separate building to which the public would be given free access. The erection of the first wing of the permanent National Library building has been completed, and it is designed to meet the requirements of University students and the general public, to whom the privileges of the Library have been extended in respect to borrowing as well as reference. The design for the complete building makes ample provision for the housing of special collections and for the proper display of the valuable records of Australian history which the Library possesses. In 1936 a further development in the scope of the National Library was the establishment of an Historical Film and Speaking Record Section. This is being developed in co-operation with the Department of Commerce and is controlled by a Committee consisting of the Librarian, the Officer-in-Charge of the Cinema and Photographic Branch of the Department of Commerce, and a representative of the Film Industry—Mr. S. S. Crik.

The work of the National Library was also extended in 1936 as the result of a grant of \$7,500 in three annual instalments of \$2,500 from the Carnegie Corporation of New York for the establishment of library and reading facilities to outlying Commonwealth

Territories. Collections of books are regularly sent to the Northern Territory, Papua, New Guinea, Central Australia, Norfolk Island and Nauru. After remaining for a period in one Territory they are sent on to another and are then finally distributed among the Territories for permanent retention so as to help build up a Central Library for each Territory.

The number of volumes in the National and Parliamentary collections—both of which are under the same administration—was, at the end of June, 1937, 131,630 books and 8,600 pamphlets, the outstanding feature of the National collection being a unique collection of Captain Cook manuscripts, while the Parliamentary section contains an extensive series of official publications of Great Britain, the Dominions, and Foreign countries. The following publications are issued by the Library: Historical Records of Australia—34 volumes, 12s. 6d. per volume; Parliamentary Handbook and record of elections—eight issues, 10s. 6d. per volume; Annual catalogue of Australian publications—two issues, 2s. per volume; Select list of representative works dealing with Australia (reprinted from the Official Year Book of the Commonwealth)—four issues.

(b) *Patent Office Library.* The free library attached to the Commonwealth Patent Office, Canberra, contains over 50,000 volumes. Patent specifications are received from the principal countries of the world, together with official publications dealing with Patents and Trade Marks. A wide range of technical literature and periodicals is available.

(ii) *States.* In each of the capital cities there is a well-equipped Public Library, the institutions in Melbourne and Sydney especially comparing very favourably with similar institutions elsewhere. The following statement gives the number of volumes in the Public Library of each capital city at the 30th June, 1937:—

METROPOLITAN PUBLIC LIBRARIES, 1936-37.

Number of Volumes in —					
City.		Reference Branch.	Ordinary Lending Branch.	Country Lending Branch.	Total.
Canberra (a)	..	121,630	10,000	(b)	131,630
Sydney ..	..	(c) 407,034	(d)	82,867	489,901
Melbourne (e)	..	430,273	73,541	15,414	519,228
Brisbane ..	..	39,566	..	..	39,566
Adelaide ..	..	178,379	(f)	(g) 3,793	182,082
Perth ..	..	148,667	..	(h) 25,715	174,382
Hobart (e)	..	35,303	(i) 8,465	..	43,768

(a) Includes Parliamentary section. (b) Books are loaned to libraries or students throughout Australia whenever necessary for research work. (c) Including 14,031 volumes in the Mitchell Library. (d) The maintenance and control of the ordinary lending branch of the Public Library at Sydney were transferred in 1908 to the Municipal Council. At 31st December, 1936, the books numbered 47,633. (e) Year ended 31st December, 1936. (f) The Adelaide Circulating Library at 30th June, 1937, contained 86,000 books. (g) Children's Branch. (h) Includes 6,042 volumes in School Children's Travelling Branch. (i) Includes 2,124 volumes in the Children's Branch.

In connexion with the Country Lending Branch of the Sydney Public Library, it may be noted that books are forwarded on loan to State schools, to approved associations, to Schools of Arts and to individual students. During the year 1936-37, about 86,000 books were lent to small State schools, 18,300 to Schools of Arts, 6,500 to branches of the Teachers' Federation and 2,300 to Agricultural Bureaux, while 56,600 reference works were loaned to individual country students.

A special research staff attached to the Public Library gives valuable assistance in making readily available to inquirers the store of information contained in books, etc., which, owing to limitations of space, are not in open access. About 7,067 books and periodicals were added to the library in 1936-37.

The Mitchell Library in Sydney of more than 60,000 volumes and pamphlets, and 300 paintings, principally relating to Australasia, and valued at £100,000, was bequeathed to the trustees of the Public Library in 1907 by Mr. D. S. Mitchell, together with an endowment of £70,000. The testators stipulated that the regulations of the British Museum were to be adopted as far as practicable, hence the library is the resort of specialists. There are now 140,000 volumes in the library in addition to valuable manuscripts, collections of Australian postage and fiscal stamps, and various pictures, coins, etc.

Amongst other important libraries in New South Wales may be mentioned the library at the Australian Museum, 28,700 volumes; the Teachers' College Library, 51,400; Sydney Technical College library, 19,200; Public School libraries, 526,200; and the Cooper Library of the New South Wales Public School Teachers' Federation and the library at the Botanic Gardens, each of 10,000 volumes. At the end of 1936 the Parliamentary Library contained 83,000 volumes.

The reading room at the Melbourne Public Library ranks among the finest in the world. It was opened in 1913, and has a diameter of 114 feet, with a similar height and is capable of seating 320 readers at a time, all of whom are under observation from the centre of the room. The Library forwards volumes on loan to Mechanics' Institutes and Free Libraries, and to individual borrowers in the country. Railway transport is used as far as possible in transporting the volumes. During the year 1936 the volumes added to the Reference branch by purchase, donation, etc., numbered 8,440, while additions to the lending branch numbered 3,250.

For some years past efforts have been made in South Australia to collect original documents likely to be of service in compiling a history of the State. So far back as 1914, Professor Henderson, of Adelaide University, under commission from the South Australian Government, visited and reported on the system of keeping archives in England, France, Belgium, Holland and Ceylon, and obtained valuable information also from the United States and Canada. A department of historical documents has been created under the care of an archivist, and valuable work has been done in connexion with examination, classification and permanent preservation of the valuable papers. A suitable building for housing the documents and the staff was provided in 1921. At the 30th June, 1937, the collection numbered 304,216 documents, 15,477 views and 1,366 maps.

For the year ended 30th June, 1937, accessions to the Public Library at Perth numbered 376 books including bound volumes of periodicals.

During 1922 the Tasmanian Public Library adopted the plan of lending books to individual country borrowers and to families or committees of residents in country districts. The Public Library at Launceston contains 42,000 volumes. Books added to the Public Libraries at Hobart and Launceston during the year 1936 numbered 526 and 1,136 respectively.

Statistics in regard to other libraries are not available for all States, while the information supplied is not in all cases complete. Returns for Victoria in 1936 showed a total of about 420 libraries in receipt of State or municipal aid, but apart from the Melbourne Public Library statistics are now only collected from 25 institutions in Greater Melbourne and 47 in the chief extra metropolitan towns. These libraries contained approximately 485,000 volumes. Queensland returned a total of 215 libraries, with 573,132 books, although during 1936 37 libraries other than the State Public Library did not receive Government aid. Although 275 suburban and country institutions were recorded in South Australia during 1936 statistics were collected from only 239 which returned 707,000 volumes, while in Tasmania 89,000 volumes were distributed between 30 libraries other than the Hobart and Launceston public institutions.

(iii) *University Libraries.* The libraries of the Australian universities perform two important functions in Australian life and development: they provide material not only for the education of graduates and undergraduates, but for scholars, research workers and practical investigators all over the continent, since no genuine student is refused access to them. Much of the material they contain is not available elsewhere, for although in most cases smaller, they are in many directions more highly specialized

than the public libraries, whose resources they are thus able to supplement. They lend to one another and to State and private institutions as well as to individual investigators, and they both lend to and borrow from the public and scientific libraries. Each of them is governed by a librarian, who is responsible as a rule to an executive sub-committee and a committee which is practically co-extensive with the professorial staff. In size the library of the University of Sydney is the third in Australia, and the libraries of the Universities of Adelaide and Melbourne are respectively seventh and eighth. The following table shows the sizes and rates of growth of the Australian university libraries; it is impossible to give borrowing statistics, as they differ too widely to be comparable without much explanation:—

UNIVERSITY LIBRARIES, 1937.

University.					Number of Volumes.	Yearly Accessions.	Number of Current Periodicals.
Sydney	..	..	..	..	238,150	6,600	2,959
Melbourne	..	..	..	..	103,000	4,240	1,300
Queensland	..	..	..	..	44,930	2,440	750
Adelaide	..	..	..	..	109,600	4,300	2,100
Western Australia	..	..	..	..	50,251	1,800	460
Tasmania	..	..	..	..	38,200	3,917	250

The first books were bought for the library of the University of Sydney as early as 1851; only since 1910, however, has it possessed a building of its own. It is named after its principal benefactor, Thomas Fisher, who bequeathed to it in 1885 the sum of £30,000. It contains an up-to-date bookstock of glass and steel, but the design of the otherwise fine reading room is such as to make it difficult to install a satisfactory system of shelving; the library is therefore conducted on the closed access system. Under-graduates, however, as well as graduates and members of the teaching staff, are encouraged to borrow freely. The library possesses a large number of periodicals, especially scientific, valuable collections of seventeenth century pamphlets and Elizabethan translations from the classics, and an extensive collection of Australian literature. Besides a medical branch, there are a number of departmental libraries.

Early in 1854 the Council of the University of Melbourne made its first allocation for books, but the library was housed in temporary and unsatisfactory quarters for a number of years, and consequently growth was slow and complaints frequent. In recent years the University authorities have treated the library generously, and there have been some welcome benefactions, but accommodation is insufficient and a new library building is one of the most pressing needs of the University. All the books are accessible on open shelves, and though the library is intended primarily for reference purposes, borrowing, except of text-books and certain valuable volumes, is made as easy as possible. There are branches in the science departments, and a separate medical library.

The Library of the University of Queensland began 26 years ago with £3,000 worth of books, £2,000 having been raised by public subscription and £1,000 granted by the Government. At present it shares a building with a science department. There are several departmental libraries.

The Adelaide University Library bears the name of its original benefactor, Robert Barr Smith, who, with members of his family in and after 1892, gave the University about £50,000 for library purposes. Some 20,000 volumes are shelved in the reading room, and available to the ordinary student. Up-to-date steel bookstacks provide accommodation for about 100,000 volumes, and additions now planned will be capable of housing a further 500,000. At present borrowing by students is restricted to honours and post-graduate research students. There are medical, law and departmental libraries.

In the University of Western Australia the first permanent library staff was not appointed until 1927. A special feature is the use made of student co-operation. The whole collection is accessible on open shelves, and there are several departmental libraries.

The Library of the University of Tasmania was founded in 1893, but for many years it comprised little more than a collection of text-books. In 1913 a substantial increase of funds was allotted and important gifts received. In 1919 it was organized for the first time in accordance with modern library practice. Its growth has been steady since 1925.

3. **Public Museums and Art Galleries.**—Previous issues of the Official Year Book contained a brief description of the public museums and art galleries in each State (see No. 22, pp. 457-9), but considerations of space preclude the incorporation of this matter in the present volume.

4. **State Expenditure on Education, Science and Art.**—The expenditure in each State on education, science and art during the year 1936-37 is given in the following table. Owing to the details not being available in all States the figures are exclusive of officers' pensions and interest and sinking fund on capital expended on buildings. The cost of the medical inspection of school children is also excluded, as this service is more appropriately classified under Public Health, etc. :—

STATE EXPENDITURE ON EDUCATION, SCIENCE AND ART, 1936-37.

State.	Expenditure from—				Receipts.	Net Expenditure.
	Revenue.	Loan.	Other Funds.	Total.		
	£	£	£	£	£	£
New South Wales	4,479,492	222,203	..	4,701,695	102,769	4,598,926
Victoria.. ..	2,975,619	92,817	5,305	3,073,741a	60,342	3,013,399
Queensland ..	1,670,231	209,573	5162,889	2,042,693	21,821	2,020,872
South Australia ..	1,016,185	58,514	..	1,074,699	49,264	1,025,435
Western Australia	821,546	28,631	..	850,177	26,823	823,354
Tasmania ..	347,792	54,249	..	402,041	293	401,748
Total ..	11,310,865	665,987	168,194	12,145,046	261,312	11,883,734

(a) In addition fees in respect of technical education amounting to £69,369 were received and spent by the School Councils.

(b) From Unemployment Relief Tax Fund.

CHAPTER VII.

PUBLIC JUSTICE.

§ 1. Police.

1. *General*.—In early issues of the Year Book (see No. 4, p. 918) a résumé was given of the evolution of the police force in Australia up to the passing of the Police Act of 1862 (25 Vic. No. 16) in New South Wales.

2. *Strength of Police Force*.—(i) *General*. The strength of the police force in each State during the five years ended 1936 is given in the table hereunder. It may be mentioned that the police forces (with the exception of the small body of Commonwealth police maintained in the Northern Territory and at the Australian Capital) are entirely under State control, but, by arrangement, the Commonwealth Government utilizes their services in various directions, such as the collection of particulars for Commonwealth electoral rolls, etc.

POLICE FORCES.—STRENGTH.

State or Territory.	Area of State in Sq. Miles.	1932.	1933.	1934.	1935.	1936.
New South Wales..	309,432	3,590	3,600	3,600	3,593	3,726
Victoria ..	87,884	2,121	2,148	2,170	2,247	2,289
Queensland (a) ..	670,500	1,262	1,275	1,320	1,325	1,363
South Australia (a)	380,070	740	762	766	817	837
Western Australia (a)	975,920	550	559	583	592	585
Tasmania (a) ..	26,215	264	260	281	284	282
Northern Territory (a)	523,620	40	40	41	41	41
Aust. Cap. Territory	940	13	13	14	14	15
Total ..	2,974,581	8,580	8,657	8,775	8,913	9,138

(a) 30th June of year following.

The figures for New South Wales for 1936 are exclusive of 13 "black trackers," i.e., natives employed in detection of offenders chiefly in outlying districts, 4 matrons and 2 relieving matrons, while the Victorian returns are exclusive of 3 matrons and 2 black trackers. For Queensland the figures exclude 38 native trackers, for South Australia 2 black trackers and 4 wardresses, and for the Northern Territory 34 black trackers. There are also 41 black trackers and 4 female searchers in Western Australia not included in the table. According to the returns, women police are employed in all the States, the respective numbers included in the above table being: New South Wales 8, Victoria 7, Queensland 2, South Australia 14, Western Australia 6, and Tasmania 1. Their work is mainly preventive, and the importance and usefulness of their duties have been referred to in very high terms by the Chief Officers of Police. In his Report for the year 1936 the Inspector General of Police in New South Wales stated that "there is no doubt that the activities of the women Special Constables have resulted in the rescue of many girls from downfall." The Inspector-General also refers to the valuable assistance rendered by the women police to detectives and the ordinary police in connexion with crimes against women and children, and to the protection given to lost children at large public carnivals. The experience in other States has been of a similar nature.

(ii) *Proportion to Population*.—The average number of inhabitants in the various States to each police officer during the same period is shown in the following table. In considering these figures allowance must, of course, be made for the unequal area and unequal distribution of the population of the various States.

POLICE FORCES.—COMPARISON WITH POPULATION.

State or Territory.	Number of Persons per Sq. Mile, 1933 Census.	Inhabitants to each Police Officer.				
		1932.	1933.	1934.	1935.	1936.
New South Wales	8.41	722	726	732	740	716
Victoria	20.71	853	849	847	820	809
Queensland (a)	1.41	752	753	733	740	728
South Australia (a)	1.53	781	762	763	718	703
Western Australia (a)	0.45	791	785	764	756	777
Tasmania (a)	8.68	860	875	814	809	825
Northern Territory (a)	0.01	120	120	125	130	133
Aust. Cap. Territory	9.52	687	712	707	666	652
Total	2.23	770	769	764	758	745

(a) 30th June of year following.

3. **Duties of the Police.**—In addition to the ordinary employment attaching to their office, the police are called upon to perform many duties which in other countries are carried out by various functionaries. Thus, in New South Wales, according to the Report of the Inspector-General, the time of one-fifth of the force was taken up during 1921 in extraneous duties unconnected with the protection of life and property, while the cash value of the services rendered to other Government departments was stated as over £200,000 per annum. The Queensland Commissioner refers to the circumstance that in 1936–37 no less than 54 important subsidiary offences were held by the police. In South Australia, the Commissioner alludes to the large number of subsidiary duties performed by police officers, and mentions that for the year ended June, 1937, 263,506 inquiries were made on behalf of other departments. While these special tasks doubtless involve some degree of sacrifice of ordinary routine duties, the fact that the general intelligence of the police is adequate for their performance, besides being most creditable, results in a large saving of the public money.

4. **Cost of Police Forces.**—The expenditure from Consolidated Revenue on the police force in each State, and the cost per head of population during the five years 1932–33 to 1936–37, are given in the following table. In order to present comparable figures the cost of pensions or superannuation benefits is not included in the table :—

POLICE FORCES.—COST.

State.	1932–33.	1933–34.	1934–35.	1935–36.	1936–37.
TOTAL.					
	£	£	£	£	£
New South Wales	1,409,162	1,421,749	1,428,125	1,532,508	1,569,202
Victoria	604,343	620,570	665,750	714,097	793,833
Queensland	456,240	480,432	518,768	523,871	535,488
South Australia	278,209	279,481	263,052	270,897	273,108
Western Australia	203,298	218,523	221,628	230,033	238,708
Tasmania	83,798	85,161	99,393	106,801	114,219
Total	3,035,050	3,105,916	3,196,716	3,378,207	3,524,558

POLICE FORCES.—COST—*continued*.

State.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
PER HEAD OF POPULATION.					
New South Wales ..	8. d. 10 11	8. d. 10 11	8. d. 10 10	8. d. 11 6	8. d. 11 10
Victoria ..	6 8	6 10	7 3	7 9	8 7
Queensland ..	9 8	10 1	10 10	10 9	11 0
South Australia ..	9 7	9 7	9 0	9 3	9 4
Western Australia ..	9 4	9 11	10 0	10 3	10 8
Tasmania ..	7 4	7 5	8 8	9 3	9 11
Total ..	9 3	9 4	9 7	10 0	10 5

The totals quoted above refer exclusively to the State police forces, and are based on returns supplied by the States for the respective financial years. As shown in the first table in this chapter, the Commonwealth Government maintains small police forces in the Northern Territory and in the Australian Capital Territory, the expenditure on which in 1936-37 amounted to £22,593 and £5,795 respectively.

5. *Interstate Police Conferences.*—In February, 1921, a Conference of the chief officers of the police forces of the various States was held in Melbourne. In addition to the discussion of matters of common interest, arrangements were made for the interchange of detectives. The results were so satisfactory that it was decided to hold similar Conferences annually. Amongst other matters discussed at the Hobart Conference in 1927, particular attention was given to the subject of traffic regulation in view of the large and increasing number of motor vehicles. Conferences were held at Melbourne in 1928, and at Perth in 1929, but owing to the need for economy no further meetings have been held.

§ 2. Lower (Magistrates') Courts.

1. *General.*—In considering the criminal returns of the various States, due allowance must be made for certain factors, such as the relative powers of the courts, both lower and higher, etc. In the case of lower courts, the actual number of laws in each State the breach of which renders a person liable to fine or imprisonment must be taken into account. Again, the attitude of the magistracy and police towards certain classes of offences is a factor, for in the case of liquor laws, or laws connected with vagrancy or gaming, the views of the magistrates, and instructions issued to the police, may be responsible for considerable variations in the returns. The strength and distribution of the police forces, and the age-constitution and distribution of the States' population, also influence the results. Due weight should also be given to the prevalence of undetected crime, but information on this point is not available for all States. It may be mentioned that each State has its own separate judicial system, the Commonwealth jurisdiction being confined to the High Court of Australia, which is largely a Court of Appeal intermediate to the Privy Council although it has also original jurisdiction, the Commonwealth Court of Conciliation and Arbitration and the Federal Court of Bankruptcy. Full particulars regarding the judicial power of the Commonwealth will be found in Chapter III. of the Commonwealth Constitution.

2. *Powers of the Magistrates.*—Preceding issues of the Official Year Book contained a brief statement of the powers of the magistrates in the various States (see No. 22, page 462), but this information is not repeated in the present volume.

3. Persons charged at Magistrates' Courts.—The total number of persons who were charged before magistrates in each State is given below for the five years 1932 to 1936:—

MAGISTRATES' COURTS.—PERSONS CHARGED.

State or Territory.	1932.	1933.	1934.	1935.	1936.
New South Wales ..	116,341	126,134	127,960	134,900	144,707
Victoria ..	56,797	58,406	57,070	65,973	82,118
Queensland (a) ..	24,983	28,259	28,922	31,909	34,359
South Australia ..	17,546	15,285	15,916	17,299	17,213
Western Australia ..	14,707	13,544	14,575	19,255	22,611
Tasmania ..	7,051	7,271	7,197	8,345	8,948
Northern Territory ..	308a	353a	401	308a	370a
Australian Capital Territory	194	166	210	135	165
Total ..	237,927	249,418	252,251	278,124	310,491

(a) Year ended 30th June following.

Investigation of the returns shows that considerable variations in the figures for single States are occasioned by breaches of new Acts, or the more stringent enforcement of the provisions of existing Acts. Any deductions drawn from the total returns as to the increase or otherwise of criminality must, therefore, be largely influenced by a careful analysis of the detailed list of offences. Thus, the considerable increase in the total offences in Victoria for the year 1936 as compared with the previous year was chiefly due to a rise of 14,800 in the miscellaneous class, the bulk of which consisted of charges under the Motor Car, Education and Licensing Acts, and breaches of the Traffic Code which came into operation in June, 1936.

4. Convictions and Committals.—The figures given in the tabulation above include, of course, a number of people who were wrongly charged, and statistically are not of general importance. The actual number of convictions in connexion with the persons who appeared before the lower courts in each year from 1932 to 1936 is, therefore, given in the next table. A separate line is added showing the committals to higher courts.

MAGISTRATES' COURTS.—CONVICTIONS AND COMMITTALS.

State or Territory.		1932.	1933.	1934.	1935.	1936.
New South Wales ..	Convictions	93,860	100,075	104,018	110,135	117,490
	Committals	2,244	2,202	1,732	1,748	1,620
Victoria ..	Convictions	45,664	47,079	45,748	54,666	70,752
	Committals	1,024	1,404	1,531	1,587	1,482
Queensland (a) ..	Convictions	21,679	25,430	25,997	29,527	31,575
	Committals	352	367	256	209	238
South Australia ..	Convictions	14,705	13,060	13,728	14,838	14,920
	Committals	400	343	325	269	237
Western Australia ..	Convictions	13,214	12,244	13,585	17,966	21,120
	Committals	111	70	144	102	113
Tasmania ..	Convictions	6,450	6,849	6,464	7,658	8,347
	Committals	142	89	62	79	71
Northern Territory	Convictions	297a	296a	365	262a	316a
	Committals	..	17a	0	8a	10a
Australian Capital Territory	Convictions	186	151	187	125	155
	Committals	5	2	..	1	4
Total ..	Convictions	196,055	205,184	210,092	235,177	264,675
	Committals	4,278	4,494	4,059	4,003	3,775

(a) Year ended 30th June following.

5. **Convictions for Serious Crime.**—While the figures given in the preceding table refer to the entire body of convictions, the fact must not be overlooked that they include a large proportion of offences of a technical nature, many of them unwittingly committed against various Acts of Parliament. Cases of drunkenness and minor breaches of good order, which, if they can be said to come within the category of crime at all, at least do so in a very different sense from some other offences, also help to swell the list. The following table has therefore been prepared for the purpose of showing the convictions at magistrates' courts for what may be regarded as the more serious offences, i.e., against the person and property, either separately or conjointly, and forgery and offences against the currency :—

MAGISTRATES' COURTS.—CONVICTIONS FOR SERIOUS CRIME.

State or Territory.	1932.	1933.	1934.	1935.	1936.
NUMBER.					
New South Wales ..	12,224	11,104	11,920	12,069	13,220
Victoria ..	4,024	4,715	4,438	4,955	5,240
Queensland (a) ..	2,526	2,254	2,329	2,311	2,400
South Australia ..	1,448	1,343	1,434	1,382	1,121
Western Australia ..	1,479	1,316	1,404	1,691	1,741
Tasmania ..	726	713	856	936	963
Northern Territory ..	21(a)	20(a)	26	15(a)	32(a)
Australian Capital Territory	29	38	13	11	21
Total ..	22,477	21,503	22,420	23,370	24,738

PER 10,000 OF THE POPULATION.

New South Wales ..	47.38	42.67	45.43	45.02	49.55
Victoria ..	22.25	25.90	24.24	26.94	28.36
Queensland (a) ..	26.99	23.71	24.24	23.77	24.39
South Australia ..	25.05	23.11	24.58	23.62	19.08
Western Australia ..	33.99	29.99	31.79	37.97	38.69
Tasmania ..	31.97	31.21	37.35	40.76	41.68
Northern Territory ..	42.61(a)	40.87(a)	52.71	29.41(a)	61.97(a)
Australian Capital Territory	32.49	41.96	14.04	11.72	21.51
Total ..	34.17	32.43	33.57	34.75	36.50

(a) Year ended 30th June following.

6. **Decrease in Serious Crime, 1881 to 1935.**—(i) *Rate of Convictions.* Statistics of convictions reveal a consistent increase in the rate of serious crime from 1925 to 1931, when 37.1 convictions per 10,000 of the population were recorded. Following this comparatively high figure the rate declined to 32.43 in 1933 but has since risen to 36.50. Viewed over a longer period the position is very satisfactory, for the average number

of convictions is now little more than half of those reported in 1881. Only the more serious offences particularized in the preceding sub-section have been taken into consideration.

MAGISTRATES' COURTS. SERIOUS CRIME.—RATE OF CONVICTIONS, 1881 TO 1935

Year.	Convictions per 10,000 Persons.					
1881	..	..	..	..	..	69.3
1891	..	..	..	..	..	44.8
1901	..	..	..	..	..	29.1
1911	..	..	..	..	..	24.6
1921	..	..	..	..	..	29.2
1931	..	..	..	..	..	37.1
1936	..	..	..	..	..	36.5

(ii) *Causes of Decrease.* The decrease in crime already referred to is restricted entirely to the lower or magistrates' courts. There has also been a gratifying decrease in regard to offences tried at the higher courts, as will be seen later. A review of the various factors responsible for this decline is given in preceding issues of the Official Year Book. (See No. 22, p. 465.)

7. *Drunkenness.*—(i) *Cases and Convictions.* The number of cases of drunkenness and the convictions recorded in connexion therewith during the period 1932 to 1936 will be found in the following table:—

DRUNKENNESS.—CASES AND CONVICTIONS.

State or Territory.	1932.		1933.		1934.		1935.		1936.	
	Cases.	Convictions.	Cases.	Convictions.	Cases.	Convictions.	Cases.	Convictions.	Cases.	Convictions.
New South Wales ..	21,815	21,510	25,727	25,421	26,872	26,344	28,450	27,823	31,383	30,297
Victoria ..	8,255	7,028	9,240	7,975	8,666	7,244	10,221	9,217	10,390	10,247
Queensland (a) ..	6,355	6,315	6,697	6,062	7,583	7,531	8,383	8,362	10,436	10,409
South Australia ..	2,653	2,643	2,373	2,357	2,430	2,418	2,748	2,737	2,639	2,628
Western Australia ..	2,111	2,093	1,992	1,960	2,016	1,999	2,686	2,671	2,879	2,849
Tasmania ..	250	245	228	222	312	309	419	411	386	384
Northern Territory ..	139 ^a	139 ^a	133 ^a	133 ^a	159	154	134 ^a	134 ^a	87 ^a	87 ^a
Aust. Cap. Terr.	64	64	69	69	95	95	55	55	63	63
Total ..	41,642	40,037	46,459	44,799	48,133	46,094	53,096	51,410	58,263	56,964

(a) Year ended 30th June following.

Under the heading "drunkenness" are included cases of ordinary drunkenness, drunkenness and disorderliness, and habitual drunkenness. In the figures quoted for Western Australia, convictions for disorderliness attributable to drink were formerly included in the second category, but since 1929 the returns relate only to drunkenness either as a single or concurrent offence.

The number of convictions is, as might naturally be expected, almost identical with the number of cases. Until 1936 this was not so in the case of Victoria for in this State offenders are generally discharged on a first appearance and no conviction is recorded, a similar procedure being also adopted in the case of those arrested on Saturday and detained in custody till Monday. In 1936, however, these cases have been included as convictions.

(ii) *Convictions per 10,000 of Population.* The convictions for drunkenness per 10,000 of the population during each of the years from 1932 to 1936 are given hereunder:—

DRUNKENNESS.—CONVICTIONS PER 10,000 INHABITANTS.

State or Territory.	1932.	1933.	1934.	1935.	1936.
New South Wales	83.4	97.7	100.4	105.2	113.5
Victoria	38.9	43.8	39.6	50.1	55.5
Queensland (a)	67.5	70.1	78.4	86.0	105.8
South Australia	45.7	40.6	41.5	46.8	44.7
Western Australia	48.1	44.7	45.3	60.0	63.3
Tasmania	10.8	9.7	13.5	17.9	16.6
Australian Capital Territory	71.7	76.2	102.6	58.6	64.5
Total	60.9	67.6	68.9	76.4	83.7

(a) Year ended 30th June following.

In the 'twenties the convictions for drunkenness averaged approximately 100 per 10,000 inhabitants, but the rate fell away considerably during the depression years and was only 57.1 in 1931; with the improvement in the social condition of the people following that year, the average has steadily risen to 83.7 in 1936. Figures for the consumption of beer have followed a very similar course. From an average of 11½ gallons consumed per head of the population for some years prior to the depression the amount declined to 7.32 gallons in 1931, and thereafter rose each year to 10½ gallons in 1936.

The convictions for drunkenness taken by themselves are not an altogether satisfactory test of the relative sobriety of the inhabitants of each State, inasmuch as several important factors must be taken into consideration. The age and sex constitution of the people, for example, are by no means identical in all the States. (Owing to the smallness of the population the figures for the Northern Territory are, of course, abnormal and have not, therefore, been included in the above table.) The avocations of the people affect the result, since persons engaged in strenuous callings are, on the whole, more likely to indulge in alcoholic stimulants than those employed in less arduous ones. The distribution of the population is also a factor, the likelihood of arrest or summons for drunkenness obviously being greater in the more densely populated regions, while allowance must be made for the attitude of the magistracy, the police and the public generally in regard to the offence. Due account also must be taken of the effect of legislation dealing with the limitation of hours during which liquor may be sold in hotels.

(iii) *Consumption of Intoxicants.* The following table shows the consumption of spirits, wine and beer per head of the population in Australia during each year of the quinquennium 1932-33 to 1936-37:—

INTOXICANTS, CONSUMPTION.—AUSTRALIA.

Year.	Consumption per Head of Population.		
	Spirits.	Wine.	Beer.
	Imp. Galls.	Imp. Galls.	Imp. Galls.
1932-33	0.17	0.82	7.43
1933-34	0.19		8.02
1934-35	0.21		8.68
1935-36	0.21		9.60
1936-37	0.21		10.34

(iv) *Treatment of Drunkenness.* (a) *General.* Though the problem of the correct method of dealing with dipsomania is by no means an easy one, it seems fairly clear that the present plan of bringing offenders before magistrates, and subjecting them to the penalty of imprisonment or fine, has little deterrent effect, as the same offenders are constantly reappearing before the courts. Further, the casting of an inebriate into prison and placing him in his weakened state in the company of professional malefactors certainly lowers his self-respect, and doubtless tends to swell the ranks of criminals. Examination of the prison records in New South Wales some years ago disclosed the fact that over 40 per cent. of the gaol population had commenced their criminal career with a charge of drunkenness. During the last few years the dangers of moral contamination in this way have been more accurately appreciated, and a system of classification of prisoners has been adopted whereby the petty offender is as far as possible kept from association with the more evilly-disposed.

(b) *Remedial.* Legislation has been passed in each State providing for the commitment of inebriates to special Government institutions. The laws in the various States are as follows:—New South Wales, Inebriates Act 1912; Victoria, Inebriates Act 1928; Queensland, Inebriate Institutions Act 1896; South Australia, Inebriates Act 1908 amended in 1920 and 1934, Convicted Inebriates Act 1913 amended in 1934; Western Australia, Inebriates Act 1912-19; Tasmania, Inebriates Act 1885, Inebriate Hospitals Act 1892. Curative work was first undertaken by the Government of New South Wales in 1907. In most cases the institutes are connected with the gaols, and, naturally, custodial measures are still a strong feature in their management; nevertheless, the results of remedial measures have been encouraging.

8. *First Offenders.*—In all the States statutes dealing with first offenders have been in force for many years. Existing legislation is as follows:—New South Wales, Crimes Act 1900 amended in 1924 and 1929, First Offenders (Women) Act 1910; Victoria, Crimes Act 1928; Queensland, Criminal Code Acts 1899 to 1931; South Australia, Offenders Probation Act 1913 amended in 1934; Western Australia, Criminal Code Act 1913; Tasmania, Probation of Offenders Act 1934. The method of procedure is practically the same in all cases, i.e., with regard to most first offenders the magistrate or judge is empowered to allow the offender to go free on recognizances being entered into for his good behaviour for a certain period. In practice, this humane law has been found to work excellently, very few of those to whom its provisions have been extended having been found to relapse into crime.

9. *Children's Courts.*—Special courts for the trial of juvenile offenders have been established in New South Wales, Victoria, Queensland, Western Australia, Tasmania and New Zealand, while Children's Courts, although not under that title, are provided for by the Maintenance Act of 1926 in South Australia. The object of these courts is to avoid, as far as possible, the unpleasant surroundings of the ordinary police court.

10. *Committals to Superior Courts.*—(i) *General.* In a previous paragraph it has been pointed out that comparisons of criminality based on a consideration of the total returns from magistrates' courts are somewhat inadequate, seeing that the figures include numbers of cases which are merely technical breaches of laws having in some instances a purely local significance. The committals to higher courts give a better basis of comparison, although even in this connexion allowance must be made for the want of uniformity in jurisdiction. The table below gives the number of committals in each year from 1932 to 1936, with the rate of such committals per 10,000 of the population :—

COMMITTALS TO SUPERIOR COURTS.

State or Territory. ^a	1932.	1933.	1934.	1935.	1936.
NUMBER.					
New South Wales ..	2,244	2,202	1,732	1,748	1,620
Victoria.. ..	1,024	1,404	1,531	1,587	1,482
Queensland (a) ..	352	367	256	209	238
South Australia ..	400	343	325	269	237
Western Australia ..	111	70	144	102	113
Tasmania ..	142	89	62	79	71
Northern Territory ..	..	17 ^a	9	8 ^a	10 ^a
Australian Capital Territory	5	2	..	1	4
Total	4,278	4,494	4,059	4,003	3,775

PER 10,000 OF THE POPULATION.

New South Wales ..	8.8	8.5	6.6	6.6	6.1
Victoria.. ..	5.7	7.7	8.4	8.6	8.0
Queensland (a) ..	3.8	3.9	2.7	2.1	2.4
South Australia ..	6.9	5.9	5.6	4.6	4.0
Western Australia ..	2.6	1.6	3.3	2.3	2.5
Tasmania ..	6.3	3.9	2.7	3.4	3.1
Northern Territory ..	..	34.7(a)	18.2	15.7(a)	19.4(a)
Australian Capital Territory	5.6	2.2	..	1.1	4.1
Total	6.5	6.8	6.1	6.0	5.6

(a) Year ended 30th June following.

(ii) *Decrease in Rate since 1861.* With occasional variations the rate of committals for serious crime has remained fairly stable during recent years, but if the comparison be carried back to 1861, it will be found that there has been a very considerable improvement, the decline in proportion to population since that date amounting to approximately 72 per cent.

RATE OF COMMITTALS, AUSTRALIA, 1861 TO 1936.

Year	1861.	1871.	1881.	1891.	1901.	1911.	1921.	1931.	1936.
Committals per 10,000 inhabitants	22	14	12	11	8	6	7	8	6

§ 3. Superior Courts.

1. **Convictions at Superior Courts.**—The number of convictions at superior courts and the rate per 10,000 of the population are given below for each of the years 1932 to 1936 :—

SUPERIOR COURTS.—CONVICTIONS.

State or Territory.	1932.	1933.	1934.	1935.	1936.
NUMBER.					
New South Wales (a) ..	1,024	855	862	766	623
Victoria.. ..	674	594	550	569	533
Queensland (a) ..	198	206	129	222	154
South Australia ..	236	224	206	172	171
Western Australia ..	75	38	81	55	52
Tasmania ..	81	59	55	54	47
Northern Territory ..	..	4	4	6a	10a
Australian Capital Territory ..	5	1	..	..	2
Total	2,293	1,981	1,887	1,844	1,592

PER 10,000 OF THE POPULATION.

New South Wales (a) ..	4.0	3.3	3.3	2.9	2.4
Victoria.. ..	3.7	3.3	3.0	3.1	2.9
Queensland (a) ..	2.1	2.2	1.3	2.3	1.6
South Australia ..	4.1	3.9	3.5	2.9	2.9
Western Australia ..	1.7	0.9	1.8	1.2	1.2
Tasmania ..	3.6	2.6	2.4	2.4	2.0
Northern Territory ..	..	8.2	8.1	11.8(a)	19.4(a)
Australian Capital Territory ..	5.6	1.1	..	..	2.0
Total	3.5	3.0	2.8	2.7	2.3

(a) Year ended 30th June following.

The rate of convictions has improved during each of the past four years, and the figure for 1936 is the lowest on record. Owing to the smallness of the population and the particular conditions prevailing there the rates for the Territories naturally show considerable variation.

2. **Offences for which Convictions were recorded at Superior Courts.** In the following table will be found a classification of the principal offences for which persons were convicted at the higher courts during each year of the period 1932 to 1936. Owing to lack of uniformity in the presentation of the returns the information is confined to the chief offences against the persons only.

SUPERIOR COURTS.—CONVICTIONS, OFFENCES AGAINST THE PERSON, AUSTRALIA.

Offences.	1932.	1933.	1934.	1935.	1936.
Murder, and attempts at ..	15	21	17	25	13
Manslaughter	17	15	15	15	21
Rape, and attempts at ..	14	16	6	10	14
Other offences against females ..	102	130	134	143	140
" " " the person	217	216	191	188	182
Total	365	398	363	381	370

The total convictions for similar offences in 1901 amounted to 432. Stated according to the proportion per 10,000 of mean population, the rate in 1936 amounted to 0.55 as compared with a rate of 1.14 in 1901, the decrease for the period amounting, to over 50 per cent.

3. **Habitual Offenders.**—Some account of the methods adopted in each State in connexion with habitual offenders is given in preceding Year Books (see No. 22, pp. 469–70).

4. **Capital Punishment.**—The table below gives the number of executions in each State during the period 1932 to 1936 :—

EXECUTIONS.

State.	1932.	1933.	1934.	1935.	1936.
New South Wales (a)	1	..	..	2	..
Victoria	1	..	..	..	2
South Australia	..	..	..	..	..
Western Australia	..	..	..	..	..
Tasmania	..	..	..	..	..
Total	2	..	..	2	2

(a) Year ended 30th June following.

Under the Criminal Code Amendment Act of 1922 capital punishment was abolished in Queensland.

In the early days of the history of Australia the penalty of death was attached to a large number of offences, many of which at the present time would be dealt with in the lower or magistrates' court. With the growth of settlement, and the general amelioration in social and moral conditions, the list was, however, considerably curtailed, and the existing tendency is practically to restrict death sentences to cases of murder. It may be remarked in cases of rape, which is a capital offence in some of the Australian States, the penalty has been but sparingly inflicted during the last few years. Juries are reputed to be loth to convict on this charge, owing to the uncertainty whether sentence of death will be pronounced.

The average annual number of executions in Australia from 1861 to 1880 was 9; from 1881 to 1900, 6; from 1901 to 1910, 4; from 1911 to 1920, 2; while the average for the last ten years has fallen to one.

§ 4. Prisons.

1. Prison Accommodation and Prisoners, 1936.—The table below shows the number of prisons in each State, the accommodation therein, and the number of prisoners in confinement at the end of 1936 :—

PRISON ACCOMMODATION AND PRISONERS, 1936.

State or Territory.	Number of Prisons.	Accommodation in—		Prisoners at End of Year.
		Separate Cells.	Wards.	
New South Wales (a)	23	(b) 2,351	..	1,183
Victoria ..	12	1,316	440	1,092
Queensland ..	6	544	94	272
South Australia ..	15	766	170	242
Western Australia ..	19	607	506	264
Tasmania ..	1	142	4	114
Northern Territory (a)	3	..	75	20
Total ..	79	5,726	1,295	3,187

(a) Year ended 30th June following.

(b) Total accommodation.

The figures refer to prisoners under sentence and are exclusive of aborigines. There are no gaols in the Australian Capital Territory, but there is a lock-up attached to the police station, where offenders are held while awaiting trial, and sentences not exceeding one week imposed by a magistrate may be served.

2. Prisoners in Gaol, 1932 to 1936.—The number of prisoners in gaol at the 31st December in each of the years 1932 to 1936 and the proportion per 10,000 of the population are given in the following table. The figures refer to prisoners under sentence and are exclusive of aborigines.

PRISONERS IN GAOL.

State or Territory.	1932.	1933.	1934.	1935.	1936.
NUMBER.					
New South Wales (a)	1,775	1,515	1,398	1,330	1,183
Victoria ..	1,339	1,347	1,225	1,159	1,092
Queensland ..	353	331	339	301	272
South Australia ..	313	296	294	260	242
Western Australia ..	337	229	249	264	264
Tasmania ..	125	104	100	104	114
Northern Territory (a)	21	20	28	25	20
Total ..	4,263	3,842	3,633	3,443	3,187

(a) 30th June of year following.

PRISONERS IN GAOL—*continued.*

State.	1932.	1933.	1934.	1935.	1936.
PER 10,000 OF THE POPULATION.					
New South Wales (a) ..	6.9	5.8	5.3	5.0	4.4
Victoria	7.4	7.4	6.7	6.3	5.9
Queensland	3.8	3.5	3.5	3.1	2.8
South Australia ..	5.4	5.1	5.0	4.4	4.1
Western Australia ..	7.7	5.2	5.6	5.9	5.9
Tasmania	5.5	4.6	4.3	4.5	4.9
Total	6.5	5.8	5.4	5.1	4.7

(a) 30th June of year following.

After remaining stationary at 6.5 per 10,000 for the four years ended 1932 the proportion of prisoners in gaol to the total population declined to 4.7 in 1936, which figure contrasts most favourably with that obtaining in 1891 when the proportion was as high as 16 per 10,000. Rates for the Northern Territory have not been included on account of the abnormal conditions prevailing there.

3. *Improvement in Prison Methods.*—In previous issues of the Official Year Book a more or less detailed account was given of the improvements effected in each State during recent years in regard to methods of prison management (see Official Year Book No. 22, pp. 471-4), but this information is not repeated in the present volume.

§ 5. Civil Courts.

1. *Lower Courts.*—The total number of plaints entered together with the amounts awarded to plaintiffs during 1936 are given in the table hereunder. Particulars for earlier years will be found in preceding issues of the Official Year Book.

LOWER COURTS.—CIVIL CASES, 1936.

State.	1936.	State or Territory.	1936.
New South Wales { Cases No.	62,239	Western Australia { Cases No.	24,677
Amount £	399,391	Amount £	158,143
Victoria .. { Cases No.	101,024	Tasmania .. { Cases No.	17,431
Amount £	610,411	Amount £	54,847
Queensland (a) .. { Cases No.	17,555	Australian Capital { Cases No.	386
Amount £	179,714	Territory .. { Amount £	2,463
South Australia .. { Cases No.	23,796		
Amount £	159,600	Total .. { Cases No.	247,108
		Amount £	1,564,569

(a) Year ended 30th June, 1937.

Particulars in regard to the amount of judgments involved in the 471 civil cases in the Northern Territory during the year ended 30th June, 1937, are not available.

The figures just given represent the returns from the Small Debts Courts in New South Wales, the Petty Sessions Courts in Victoria, the Petty Debts Courts in Queensland, the Local Courts of South Australia and Western Australia, the Courts of Requests in Tasmania, and the Court of Petty Sessions in the Australian Capital Territory.

2. **Superior Courts.**—In the next table will be found the transactions on the civil side in the Superior Courts during the year 1936. The particulars given below include the number and amount of judgments entered by default or consent, and differ from those in previous issues prior to No. 29 which related in most States only to cases actually tried during the year.

The New South Wales returns refer to judgments in the District Courts only, and are exclusive of 2,184 judgments signed in the Supreme Court, for which the amount is not available.

SUPERIOR COURTS.—CIVIL CASES, 1936.

State.	1936.	State or Territory.	1936.
New South Wales	{ Causes No. 7,423 Amount £ 325,885	Western Australia	{ Causes No. 171 Amount £ 54,706
Victoria..	{ Causes No. 3,183 Amount £ 241,012	(b) Tasmania	{ Causes No. 280 Amount £ 30,280
Queensland (a)	{ Causes No. 370 Amount £ 50,502	Australian Capital Territory	{ Causes No. 2 Amount £ 309
South Australia	{ Causes No. 312 Amount £ 52,301	Total	{ Causes No. 11,741 Amount £ 764,055

(a) Year ended 30th June, 1937.

(b) Judgments signed and entered.

3. **Divorces and Judicial Separations.**—The number of divorces and judicial separations in each State during the period 1932 to 1936 is shown below. The figures refer in the case of divorces to decrees made absolute in each year and include decrees for nullity of marriage.

DIVORCES AND JUDICIAL SEPARATIONS.

State.	1932.		1933.		1934.		1935.		1936.	
	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.
New South Wales	853	17	1,014	22	1,092	13	1,133	15	1,160	12
Victoria	459	..	499	..	621	..	602	6	698	1
Queensland (a)	90	..	109	5	153	1	152	..	162	2
South Australia	134	..	163	2	189	1	212	1	213	..
Western Australia	110	..	121	..	157	..	159	..	193	..
Tasmania	33	..	42	..	60	..	86	1	61	1
Northern Territory (a)	1	..	..	..	..	..	2	..	4	..
Australian Capital Territory	..	..	..	..	10	..	11	..	2	..
Total	1,680	17	1,948	29	2,282	15	2,357	23	2,483	16

(a) Year ended 30th June following.

The average annual number of divorces and judicial separations in Australia at decennial periods from 1871 to 1930 and the proportion per 10,000 existing marriages were as follows:—

DIVORCES AND JUDICIAL SEPARATIONS.—AUSTRALIA.

	1871-80.	1881-90.	1891-1900.	1901-10.	1911-20.	1921-30.
Averages ..	29	70	358	401	707	1,699
Per 10,000 existing marriages	0.98	1.74	6.86	6.15	8.13	15.45

The rapid increase of divorce during the period 1891-1900 occurred largely in New South Wales and Victoria where legislation passed respectively in 1899 and 1889 made the separation of the marriage tie comparatively easy.

4. **Probates.**—Information in regard to probates and letters of administration will be found in Chapter XXVI. "Private Finance."

5. **Bankruptcies.**—Particulars relating to bankruptcy in each State up to the end of the year 1927 were incorporated under this heading in preceding issues of the Official Year Book. Under the terms of the Bankruptcy Act 1924-1933 jurisdiction in bankruptcy and insolvency was taken over by the Commonwealth from 1st August, 1928. The Act makes provision for the declaration of districts, and each State (except Queensland) has been declared a bankruptcy district. The bankruptcy district of New South Wales includes the Australian Capital Territory, while Queensland has been divided into three districts corresponding to the three Supreme Court districts in that State. The Northern Territory was also declared a separate bankruptcy district. Operations under the Act for the year ended 31st July, 1937, are given in the following table. For the purposes of comparison, figures for each of the preceding two years have been appended to the table.

COMMONWEALTH BANKRUPTCY ACT RETURNS 1936-37.

Heading.	N.S.W.	Vic.	Qld.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Australia
Sequestration Orders and Orders for Administration of Deceased Debtors' Estates								
Number ..	267	227	141	147	47	50	1	880
Liabilities £	335,835	227,043	171,148	277,281	56,903	23,344	3,553	1,095,107
Assets £	186,028	29,924	70,957	139,410	35,403	7,029	2,800	471,551
Compositions, etc., after Bankruptcy								
Number ..	8	2	..	1	..	3	..	14
Liabilities £	2,835	6,873	..	1,254	..	707	..	11,759
Assets £	1,404	6,414	..	1,142	..	404	..	9,364
Compositions, etc., without Bankruptcy								
Number ..	4	12	5	329	50	2	1	403
Liabilities £	1,757	66,050	2,443	1,341,447	137,648	2,016	1,105	1,552,466
Assets £	1,094	13,601	2,113	997,579	114,472	947	1,175	1,130,981
Deeds of Arrangement ..								
Number ..	193	103	61	3	9	7	..	376
Liabilities £	331,239	146,899	149,664	12,537	43,405	29,225	..	712,969
Assets £	283,255	91,465	149,697	13,968	27,615	26,220	..	592,220
Total, 1936-37								
Number ..	472	344	207	480	106	62	2	1,673
Liabilities £	671,000	110,705	325,253	1,352,519	237,950	33,332	4,030	3,372,301
Assets £	471,781	141,404	222,767	1,152,099	177,490	34,600	3,975	2,204,116
Total, 1935-36								
Number ..	447	343	196	582	90	55	..	1,713
Liabilities £	687,943	432,364	206,908	1,812,748	250,799	32,949	..	3,423,711
Assets £	414,632	237,834	144,830	1,203,610	204,283	10,930	..	2,270,125
Total, 1934-35								
Number ..	450	394	164	581	89	40	..	1,727
Liabilities £	662,267	835,293	192,580	1,372,350	196,476	69,149	..	3,328,132
Assets £	438,579	328,590	142,158	849,132	199,220	53,783	..	2,011,468

The Commonwealth Attorney-General's Report for the year ended 31st July, 1929, states that comparative tables have not been prepared in relation to State bankruptcy or insolvency for previous years, as the methods of collection and presentation do not afford a reliable common basis. It is also pointed out that the procedure

in certain States has been largely influenced by the procedure in force prior to the passing of the Commonwealth Act, and that, therefore, no particular significance attaches to the large number of compositions, etc., in South Australia and Western Australia. The Bankruptcy Act 1930 created a Federal Court of Bankruptcy and gave power to appoint two Judges thereto. In 1930 a Federal Judge in Bankruptcy was appointed to deal with bankruptcy work, in addition to the State Judges, in New South Wales and Victoria, the Courts in these States having been unable to cope with the business. All the bankruptcy cases in these States are now heard by the Federal Judge who sits in Sydney and Melbourne alternately.

6. **High Court of Australia.**—Under the provisions of section 71 of the Commonwealth Constitution Act, the judicial power of the Commonwealth is vested in a Federal Supreme Court, called the High Court of Australia, and in such other courts as the Parliament creates or invests with federal jurisdiction. The Federal High Court possesses both original and appellate jurisdiction. The powers of the Court are defined in Chapter III. of the Constitution Act and in the Judiciary Act 1903-1937. At present the Court consists of a Chief Justice and five other judges. Sittings of the Court are held in the capitals of the various States as occasion may require. The High Court functions as a Court of Appeal for Australia. The following statement shows the transactions of the High Court for the years 1936 and 1937. Figures for previous years are given in preceding issues.

COMMONWEALTH HIGH COURT.—TRANSACTIONS, 1936 AND 1937.

Original Jurisdiction.	1936.	1937.	Appellate Jurisdiction.	1936.	1937.
Number of writs issued	35	35	Number of appeals, set down for hearing..	107	118
Number of causes entered for trial ..	16	13	Number allowed ..	40	32
Verdicts for plaintiffs	6	9	Number dismissed ..	55	61
Verdicts for defendants	6	6	Otherwise disposed of	10	12
Otherwise disposed of	4	5			
Amount of judgments	£26,902	£104,943			

During the years 1936 and 1937 respectively the Court dealt also with the following: Appeals from Assessments under the Income Tax Assessment Act 1936-1937, 40, 25; Special cases stated for the opinion of the Full Court, 8, 2; Applications for Prohibitions, etc., 30, 10. The fees collected amounted to £594 in 1936 and £910 in 1937.

7. **Commonwealth Court of Conciliation and Arbitration.**—A more or less detailed statement regarding the operation of this Court, which was established under the provisions of the Commonwealth Conciliation and Arbitration Act of 1904-1934, will be found in the Chapter dealing with Labour, Wages, etc.

§ 6. Cost of Administration of Justice.

1. **Expenditure by the States.**—The table below shows the expenditure from Consolidated Revenue during the year 1936-37 in connexion with the administration of justice in each of the States. The figures shown represent the gross expenditure, which is offset to a large extent by the various items of revenue.

STATE EXPENDITURE ON JUSTICE, 1936-37.

State.	Expenditure.	Per Head of Population.	State.	Expenditure.	Per Head of Population.
	£	s. d.		£	s. d.
N.S.W. { Police	1,569,202	11 8	W.A. { Police	238,708	10 7
{ Gaols	268,038	2 0	{ Gaols	32,678	1 5
{ Justice	554,446	4 2	{ Justice	82,458	3 8
Vic. .. { Police	793,833	8 7	{ Police	114,219	9 10
{ Gaols	120,896	1 4	Tas. .. { Gaols	20,191	1 8
{ Justice	249,957	2 8	{ Justice	45,680	3 11
Q'land. { Police	535,488	10 7			
{ Gaols	36,720	0 9			
{ Justice	203,796	4 2			
S.A. .. { Police	273,108	9 3	Total { Police	3,524,558	10 4
{ Gaols	42,193	1 5	{ Gaols	520,716	1 7
{ Justice	62,684	2 2	{ Justice	1,199,021	3 6
			Total	5,244,295	15 5

2. **Federal Expenditure.**—The expenditure shown in the foregoing table is that incurred by the State Governments only, and does not include expenditure in connexion with the Commonwealth Attorney-General's Department, which is given hereunder for the period 1932-33 to 1936-37:—

COMMONWEALTH ATTORNEY-GENERAL'S DEPARTMENT EXPENDITURE.

Year.	Amount.	Year.	Amount.
	£		£
1932-33	197,070	1935-36	239,702
1933-34	207,279	1936-37	252,158
1934-35	223,258		

The totals for each year include expenditure in connexion with patents and copyright which amounted in 1936-37 to £59,340. As pointed out previously, the Commonwealth took over jurisdiction in bankruptcy in August, 1928, and the expenditure thereon in 1936-37 amounted to £37,838, including the salary of the Federal Judge, £2,500. Expenditure in connexion with the Australian Capital Territory police amounted in 1936-37 to £5,795, while £2,672 was expended on miscellaneous items including the Law Court, Titles Office and Industrial Arbitration Board. Revenue in connexion with the Attorney-General's Department amounted for the year to £102,613, comprising £62,103 for patents, copyright, trademarks and designs, £30,500 for bankruptcy and £9,881 miscellaneous including fees and fines.

In addition to the foregoing the following amounts were expended in the Northern Territory by the Department of the Interior:—Police, £22,593; prisons, £5,204 other expenditure in connexion with administration of justice, £4,386.

CHAPTER VIII.

PUBLIC BENEVOLENCE.

§ 1. Introductory.

Charity and charitable effort in Australia may be classified under three headings: (a) State; (b) public; and (c) private. To the first belong all institutions wholly provided for by the State, such as the principal hospitals for the insane in the various States, the Government and leased hospitals in Western Australia, and the Government asylums for the infirm in New South Wales. The other classes comprise public institutions of two kinds, viz. :—(i) those partially subsidized by the State or State endowed, but receiving also private aid, and (ii) those wholly dependent upon private aid. To the former division belong such institutions as the principal metropolitan hospitals. In the latter are included institutions established and endowed by individuals for the benefit of the needy generally. All charitable movements of a private character are included in the third group. A more or less accurate statistical account is possible in classes (a) and (b), but in regard to (c) complete tabulation is, for obvious reasons, impossible. Owing to differences in the method and date of collection and tabulation it is impossible to bring statistics of charitable institutions to a common year. In general, there is considerable want of harmony in the statistical information available for the different States.

No poor-rate is levied in Australia. Reference to old-age pensions, invalid pensions and maternity allowances, which are provided by the Commonwealth Government, will be found in the Chapter XXVII. "Public Finance".

From time to time relief funds have been organized for famine-stricken countries in various parts of the world, or for places where plagues, flood, fire, or earthquake have shown the need of urgent relief. Special funds were also raised for persons disabled or bereaved through war. Complete statistical information in regard to these forms of charity is not, however, available. It may be mentioned that the daily Press frequently accepts the duty of collectorship in charity appeals. In regard to subscriptions to the various patriotic funds which were instituted in consequence of the war, the total for Australia was estimated to exceed £12,500,000.

§ 2. The Larger Charities of Australia.

1. *Public Hospitals (other than Hospitals for the Insane).* (i) *General.* All the State capitals have several large and well-equipped hospitals, and there is at least one in every important town. In large centres there are hospitals for infectious diseases, consumptives, women, children, incurables, etc.

The particulars given herein refer to public hospitals at the latest available date, and include all institutions affording hospital relief, whether general or special, with the exception of the hospitals for the insane and private hospitals conducted commercially. It is considered that the extension of the scope of these statistics to embrace both general and special institutions will afford a better comparison as between the various States than the statistics previously issued relating to general hospitals only. The particulars for New South Wales in the following tables relate to hospitals operating under the Public Hospitals Act, 1929-1937.

(ii) *Principal Hospitals in each State.* In earlier issues of the Official Year Book (See No. 22, pp. 481-2) particulars respecting staff, accommodation, etc., of each of the principal hospitals were given.

(iii) *Number, Staff and Accommodation, 1936.* Details regarding the number of hospitals, staffs and accommodation for the year 1936, or nearest available year, are given in the appended table:—

PUBLIC HOSPITALS.—NUMBER, STAFFS AND ACCOMMODATION, 1936.(a)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Number of Hospitals ..	205	70	116	54	93	19	557
Medical Staff—							
Honorary	1,622	842	218	248	131	71	3,132
Salaried	231	214	153	56	29	32	715
Total	1,853	1,056	371	(b) 304	160	103	3,847
Nursing Staff	4,571	2,506	2,316	871	1,023	377	11,664
Accommodation—							
Number of beds and cots	13,500	7,045	5,631	2,432	3,314	1,455	33,377

(a) The figures relate to the years ended as follows:—New South Wales, Queensland, Western Australia and Tasmania—30th June, 1937; South Australia—31st December, 1936; Victoria—30th June, 1936.

(b) Exclusive of particulars of Lying-in Homes, Sanatoria and Convalescent Homes.

The figures for accommodation shown in the above table include, where available, a considerable number of beds and cots for certain classes of cases in out-door or verandah sleeping places.

(iv) *Patients Treated.* The table hereunder furnishes particulars respecting patients treated.

PUBLIC HOSPITALS.—PATIENTS TREATED, 1936.(a)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Indoor Relief—Inmates at beginning of year—							
Males	4,612	2,509	2,201	707	899	398	11,326
Females	4,899	2,688	1,825	796	875	385	11,468
Total	9,511	5,197	4,026	1,503	1,774	783	22,794
Admissions and Re-admissions during year—							
Males	97,149	39,001	50,240	15,356	20,766	8,436	230,948
Females	108,453	48,980	46,843	18,001	18,787	9,715	250,779
Total	205,602	87,981	97,083	33,357	39,553	18,151	481,727
Discharges—							
Males	92,029	36,091	47,961	14,281	19,461	7,965	217,788
Females	104,749	46,856	45,338	17,315	18,142	9,320	241,720
Total	196,778	82,947	93,299	31,596	37,603	17,285	459,508
Deaths—							
Males	5,019	2,882	2,365	1,046	1,176	470	12,958
Females	3,573	2,018	1,391	707	929	325	8,043
Total	8,592	4,900	3,756	1,753	1,805	795	21,601
Inmates at end of year—							
Males	4,713	2,537	2,115	736	1,028	399	11,528
Females	5,030	2,794	1,939	775	891	755	12,184
Total	9,743	5,331	4,054	1,511	1,919	1,154	23,712
Average Daily Number Resident—							
Males	(b)	(b)	(b)	808	(b)	372	(b)
Females	(b)	(b)	(b)	845	(b)	437	(b)
Total	9,669	5,360	4,009	(c) 1,653	1,827	809	23,327

(a) See footnote (a) to previous table.

(b) Not available.

(c) See footnote (b) to previous table.

(v) *Revenue and Expenditure.* The revenue and expenditure for the year 1936 were as follows:—

PUBLIC HOSPITALS.—REVENUE AND EXPENDITURE, 1936.(a)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Revenue—	£	£	£	£	£	£	£
Government Aid ..	1,070,899	325,756	447,873	197,453	265,385	67,453	2,374,819
Municipal Aid ..	..	81,857	178,215	37,768	3,524	5,400	306,764
Public Subscriptions, Legacies, etc. ..	(b) 535,353	263,697	34,141	36,097	34,927	16,283	920,498
Fees ..	432,598	196,033	229,764	102,515	131,819	59,038	1,151,767
Other ..	71,573	116,194	98,339	7,017	40,976	8,521	342,620
Total ..	2,110,423	983,537	988,332	380,850	476,631	156,695	5,096,468
Expenditure—							
Salaries and Wages	926,973	411,248	401,657	163,977	203,106	75,600	2,182,561
Upkeep and Repair of Buildings and Grounds ..	78,371	16,952	13,819	19,349	6,512	5,105	140,608
All Other Ordinary Capital(c) ..	785,921	431,331	452,704	166,771	173,702	70,302	2,080,731
	301,612	138,016	156,051	47,277	87,391	..	730,347
Total ..	2,092,877	997,547	1,024,231	397,874	470,711	151,007	5,134,247

(a) See note (a) to table on page 238.

(b) Includes systematic contributions, £302,823.

(c) Includes such items as Purchases of Land, Cost of New Buildings and Additions to Buildings.

(vi) *Summary for Five Years, 1932 to 1936.* Returns for the last five years of the number of hospitals in Australia, beds, admissions, indoor patients treated, deaths and expenditure are given in the following table. The figures relate to both general and special hospitals. It should be noted that the statistics for the States cannot be brought to a common year, and consequently the following particulars relate to a combination of calendar and financial years.

PUBLIC HOSPITALS.—SUMMARY, AUSTRALIA.

Particulars.	1932.	1933.	1934.	1935.	1936.
Number of institutions ..	531	530	526	526	557
Number of beds ..	29,066	30,480	31,190	31,727	33,377
Admissions during year ..	378,777	405,190	422,896	451,761	481,727
Total indoor cases treated ..	397,795	424,877	443,061	472,804	504,521
Deaths ..	17,455	17,915	19,705	20,805	21,601
Expenditure ..	£ 3,518,087	3,809,570	4,222,174	4,608,878	5,134,247

In addition to those admitted to the institutions, there are large numbers of out-patients. So far as the returns show there were 522,610 out-patients treated in New South Wales, 245,305 in Victoria, 231,618 in Queensland, 50,405 in South Australia, and 132,640 in Tasmania.

2. *Benevolent and Destitute Asylums.*—(i) *General.* The public provision for the care of indigent old people has been a feature of the social development of recent years in most countries. Numerous establishments exist in Australia for the housing and protection of persons no longer able to provide for themselves. These institutions are supported by Government and municipal aid, public subscriptions, bequests, etc.; while in many cases relatives of poor and afflicted persons contribute to their maintenance.

An entirely satisfactory statistical tabulation in regard to all forms of charitable aid is especially difficult in the case of benevolent institutions, because the services provided by these institutions are not always identical. For example, in Western Australia, the Home for Destitute Women includes a maternity ward, for which statistics are not kept separately. Since the chief function of the institution is to help the destitute, it has been included amongst benevolent asylums. In Victoria, although several of the hospitals were formerly also benevolent asylums, a separation was effected and asylum patients were transferred to appropriate institutions.

(ii) *Principal Institutions.* Particulars respecting the accommodation and the numbers of inmates of the principal institutions were published in earlier issues of the Official Year Book (See No. 22, p. 485).

(iii) *Revenue and Expenditure.* Details regarding revenue and expenditure for the year 1936 are given in the following table :—

BENEVOLENT ASYLUMS.—REVENUE AND EXPENDITURE, 1936.(a)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
	£	£	£	£	£	£	£
Revenue—							
Government Aid ..	105,703	39,823	30,662	10,212	9,305	14,406	210,111
Municipal Aid ..	..	875	..	..	12	..	887
Public Subs., Legacies etc. ..	309	12,328	2,154	..	1,387	132	16,310
Fees ..	922	43,350	38,957	6,080	16,497	5,483	111,280
Other ..	43,836	12,320	10,690	1,175	282	255	68,558
Total ..	150,770	108,696	82,463	17,467	27,483	20,276	407,155
Expenditure—							
Salaries and Wages ..	74,890	31,823	25,401	6,683	12,570	10,602	161,969
Upkeep and Repair of Buildings ..	3,505	4,619	1,585	756	1,040	511	12,016
All Other (b) ..	71,238	69,044	56,139	10,028	13,873	9,163	229,485
Total ..	149,633	105,486	83,125	17,467	27,483	20,276	403,470

(a) The figures relate to the years ended as follows:—New South Wales and South Australia—31st December, 1936; Victoria—30th June, 1936; and Queensland, Western Australia and Tasmania—30th June, 1937. (b) Including £14,440 in Victoria, £2,510 in Queensland and £107 in Western Australia, covering such items as Purchases of Land, Cost of New Buildings and Additions to Buildings.

3. *Orphanages, Industrial Schools, etc.*—(i) *General.* The methods of caring for orphans and neglected children differ extensively, inasmuch as some of the children are more or less segregated in orphanages and industrial schools, while others are boarded-out with their mothers or female relatives or with approved foster mothers. The children in orphanages and similar institutions may receive, in addition to primary education, some craft training. In all cases employment is found for the children on their discharge from the institution, and they remain for some time under the supervision of the proper authorities. The conditions under which orphans, neglected children and children boarded-out live, are subject to frequent inspections. Apart from the amounts shown in (iii) below the gross expenditure on orphanages, etc., in 1936 was approximately £400,000.

(ii) *Principal Institutions.* Particulars concerning the principal institutions in each State were published in earlier Year Books (See No. 22, p. 486).

(iii) *Transactions of State Departments.* The following table summarizes the transactions during 1936 of State Departments in connexion with children under their

control or supervision. In addition to neglected children, the figures include uncontrollable and convicted children who are wards of a Government authority, as well as poor children whose parents obtain assistance from the Government without giving up the legal right of custody.

CHILDREN UNDER GOVERNMENT AUTHORITY.—SUMMARY, 1936.(a)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
<i>A. Children maintained or subsidized by the State.</i>							
In State shelters, industrial schools, reformatories, etc. (b)	850	451	890	210	30	210	2,641
In licensed or approved institutions	..	1,431	..	..	581	..	2,012
Boarded-out—							
With own mothers ..	10,032	7,870	5,377	7079 (c)	2,614 302	43409	43,010
With licensed foster mothers, guardians, relatives and friends	3,534	2,218	575				
Total children maintained or subsidized by the State	14,416	11,970	6,842	7,289	3,527	3,619	47,663
<i>B. Children not maintained or subsidized by the State.</i>							
In licensed or approved institutions	1,187	..	..	..	2	..	1,189
Boarded-out	295	..	..	1,298	489	..	2,082
On probation (from Institutions or Children's Courts)	3,554	1,121	108	202	461	..	5,446
In service or apprenticed	265	386	437	199	153	..	1,440
Adopted or otherwise placed	258	..	15	13	..	..	286
Total children not maintained or subsidized by the State	5,559	1,507	560	1,712	1,105	..	10,443
Total children under State control or supervision ..	19,975	13,477	7,402	9,001	4,632	3,619	58,106
Gross cost of children's relief	£ 432,035	£ 273,954	£ 196,778	£ 44,678	£ 26,640	£ 14,284	£ 988,369
Receipts from parent's contributions, etc. ..	20,651	8,767	9,011	4,426	8,769	868	52,492
Net cost to State ..	411,384	265,187	187,767	40,252	17,871	13,416	935,877

(a) The figures relate to the years ended as follows: New South Wales, Victoria and Queensland—31st December, 1936; Other States—30th June, 1937. (b) In State prisons or hospitals. (c) Including 6,239 children in receipt of Ration Relief. (d) Mostly with own mothers. (e) In addition there were 219 children at Fairbridge Farm School.

The total expenditure on children's relief in the previous table shows considerable variation amongst the States owing to the different methods of treating assistance to mothers with dependent children. In South Australia, Western Australia and

Tasmania, large amounts have been excluded from the total expenditure on this account owing to the difficulty of obtaining separate amounts for allowances made in respect of the dependent children only.

4. *Leper Hospitals.*—Isolation hospitals for the care and treatment of lepers have been established in New South Wales (Little Bay); Queensland (Peel Island, near Brisbane); Western Australia (Derby); and the Northern Territory (Channel Island, near Darwin). At the end of 1937 there were 13 cases in residence at Little Bay, 71 at Peel Island, 77 at Derby, and 119 at Channel Island. There were also 6 cases isolated in the south of Western Australia and 1 case in Victoria, which were European cases infected elsewhere.

During the year 1937, 12 cases of leprosy were notified in Australia of which 3 were in New South Wales, 6 in Queensland and 3 in the Northern Territory. There were 14 deaths from leprosy registered during 1937 and 3 in 1936.

5. *Hospitals for the Insane.*—(i) *General.* The methods of compiling statistics of insanity are fairly uniform throughout the States, but comparisons are of doubtful validity, because of an element of uncertainty as to possible differences in diagnosis in the early stages of the disease.

(ii) *Hospitals, Staff, etc., 1936.* Particulars regarding the number of institutions, the medical and nursing staffs, and accommodation are given in the appended table for the year 1936:—

HOSPITALS FOR THE INSANE.—NUMBER, STAFFS, ACCOMMODATION, 1936.(a)

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Number of Institutions ..	13	(b) 11	3	2	4	1	34
Medical Staff—							
Males	33	30	6	6	4	2	81
Females	5	..	1	..	..	1	7
Total	38	30	7	6	4	3	88
Nursing Staff and Attendants—							
Males	1,031	729	296	157	122	77	2,412
Females	1,052	713	226	92	90	79	2,252
Total	2,083	1,442	522	249	212	156	4,664
Accommodation—							
Number of beds and cots	11,345	6,317	3,434	1,735	1,501	685	25,017

(a) The figures relate to years ended as follows:—New South Wales, Queensland and Tasmania—30th June, 1937; other States—31st December, 1936. (b) Includes three licensed private houses, in which cases at the end of the year numbered 66; other particulars are not available.

(iii) *Patients, 1936.* Information regarding patients treated, deaths, etc., for the year 1936 is given in the table hereunder:—

HOSPITALS FOR THE INSANE.—PATIENTS, DEATHS, ETC., 1936.(a)

Particulars.	N.S.W.	Vic. (b)	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Number of distinct persons treated during year (c)—							
Males	6,601	3,796	2,288	993	1,030	375	15,083
Females	5,880	4,166	1,565	851	618	387	13,467
Total	12,481	7,962	3,853	1,844	1,648	762	28,550

(a) See footnote (a) to previous table. (b) Including 21 males and 84 females in licensed private houses. (c) Exclusive of transfers to other institutions.

HOSPITALS FOR THE INSANE.—PATIENTS, DEATHS, ETC., 1930 (a)—continued.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Number of patients on books at beginning of year—							
Males	5,842	3,366	1,937	846	911	318	13,220
Females	5,167	3,693	1,384	726	530	318	11,818
Total	11,009	7,059	3,321	1,572	1,441	636	25,038
Admissions and re-admissions exclusive of absconders retaken and transfers from other Institutions—							
Males	759	430	334	147	119	57	1,846
Females	713	473	251	125	88	69	1,719
Total	1,472	903	585	272	207	126	3,565
Discharges (including absconders not retaken)—							
Males	384	148	164	61	34	29	820
Females	319	205	108	45	28	41	746
Total	703	353	272	106	62	70	1,566
Deaths—							
Males	348	216	164	69	71	28	896
Females	285	184	102	42	27	17	657
Total	633	400	266	111	98	45	1,553
Number of patients on books at end of year—							
Males	5,869	3,432	1,943	863	925	318	13,350
Females	5,276	3,777	1,425	764	563	329	12,134
Total	11,145	7,209	3,368	1,627	1,488	647	25,484
Average daily number resident—							
Males	5,483	(b)2,870	1,959	863	890	314	12,379
Females	4,818	(b)3,220	1,369	754	516	317	10,994
Total	10,301	(b)6,090	3,328	1,617	1,406	631	23,373
Number of patients on books at end of year per 1,000 of population—							
Males	4.32	3.75	3.74	2.93	3.88	2.69	3.87
Females	3.96	4.03	3.02	2.59	2.65	2.87	3.61
Persons	4.14	3.89	3.39	2.76	3.30	2.78	3.74
Average number of patients resident in hospitals for insane per 1,000 of mean population—							
Males	4.05	3.14	3.80	2.93	3.74	2.67	3.61
Females	3.63	3.45	2.92	2.57	2.44	2.77	3.29
Persons	3.84	3.30	3.38	2.75	3.12	2.72	3.45

(a) See footnote (a) to previous table.

(b) Exclusive of three licensed private houses.

In some States persons well advanced towards recovery are allowed to leave the institutions and reside with their relatives or friends, but they are under supervision and their names are kept in the records.

(iv) *Revenue and Expenditure, 1936.* The revenue of Government asylums is small in comparison with their cost, and consists chiefly of patients' fees. The proportion of expenditure borne by the State amounts to about 86 per cent.

HOSPITALS (GOVERNMENT) FOR THE INSANE.—FINANCES, 1936.(a)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Revenue (Exclusive of Government Grants)—	£	£	£	£	£	£	£
Fees of Patients	105,931	44,845	27,412	25,643	16,880	8,560	229,271
Other	7,521	4,876	1,438	..	2,043	69	15,947
Total	113,452	49,721	28,850	25,643	18,923	8,629	245,218
Expenditure—							
Salaries and Wages ..	446,327	280,892	147,046	53,713	59,785	41,470	1,029,233
Upkeep and Repair of Buildings and Grounds	..	40,787	..	3,773	942	1,136	46,638
All Other (b)	331,540	161,557	82,121	57,140	39,210	23,967	695,535
Total	777,867	483,236	229,167	114,626	99,937	66,573	1,771,406
Expenditure per Average Daily Resident ..	£75/10/3	£79/7/0	£68/17/2	£70/17/9	£71/1/7	£105/10/1	£75/15/9

(a) The figures relate to years ended as follows:—South Australia—31st December, 1936; other States—30th June, 1937.

(b) Includes the following amounts for capital expenditure on Purchases of Land, Cost of New Buildings, and Additions to Buildings: New South Wales, £71,505; Queensland, £15,092; South Australia, £5,177; Western Australia, £3,546.

(v) *Summary for Australia, 1932 to 1936.* The table hereunder gives a summary of hospitals for the insane in Australia during each of the five years 1932 to 1936. The figures for the States cannot be brought to a common year: consequently the following particulars relate to a combination of calendar and financial years. Licensed houses are included in all particulars save revenue and expenditure for New South Wales and Victoria. The figures are exclusive of reception houses and observation wards in gaols. In New South Wales the expenditure includes cost of Broken Hill patients treated in South Australian hospitals:—

HOSPITALS FOR THE INSANE.—SUMMARY, AUSTRALIA.

Particulars.	1932.	1933.	1934.	1935.	1936.
Number of institutions	36	37	36	35	34
„ „ beds	23,440	24,427	24,217	24,880	25,017
Admissions	3,318	3,471	3,651	3,819	3,565
Discharged as recovered, relieved, etc.	1,523	1,500	1,598	1,715	1,566
Deaths	1,422	1,498	1,467	1,577	1,553
Expenditure—Total	£1,355,515	£1,374,111	£1,527,021	£1,659,523	£1,771,406
„ —Per Average Daily Resident ..	£62/8/7	£62/14/5	£68/5/8	£72/6/4	£75/15/9

(vi) *Number of Insane, 1932 to 1936.* The proportion of insane, as well as the total number returned as under treatment, shows a continuous increase during the period covered by the following table and may possibly be a reflection of the financial stress of the period.

INSANE PERSONS IN INSTITUTIONS.

State.		1932.	1933.	1934.	1935.	1936.
NUMBER.						
New South Wales	.. ..	10,122	10,307	10,681	11,009	11,145
Victoria	.. ..	6,742	6,812	6,927	7,059	7,209
Queensland	.. ..	3,194	3,214	3,319	3,321	3,368
South Australia	.. ..	1,410	1,405	1,519	1,572	1,627
Western Australia	.. ..	1,320	1,331	1,355	1,441	1,488
Tasmania	.. ..	661	667	631	636	647
Australia	.. ..	23,449	23,856	24,432	25,038	25,484

PER 1,000 OF POPULATION.

New South Wales	.. ..	3.89	3.95	4.04	4.13	4.14
Victoria	.. ..	3.72	3.73	3.77	3.83	3.89
Queensland	.. ..	3.37	3.35	3.43	3.39	3.39
South Australia	.. ..	2.43	2.51	2.60	2.68	2.76
Western Australia	.. ..	3.02	3.02	3.06	3.22	3.30
Tasmania	.. ..	2.90	2.93	2.76	2.77	2.78
Australia	.. ..	3.55	3.58	3.64	3.71	3.74

The difference between States in the number of insane persons in institutions per 1,000 of population may be due to some extent to differences in classification.

A more rational attitude towards the treatment of mental cases has resulted in a greater willingness in recent years to submit afflicted persons to treatment at an earlier stage, and an increase in the number of recorded cases, therefore, does not necessarily imply an actual increase in insanity.

(vii) *Causes of Insanity.* The general information available respecting the causes of the insanity of persons admitted to institutions is too unsatisfactory to be given in detail.

(viii) *Length of Residence in Hospital, 1936.* (a) *New South Wales and Victoria.* Particulars are not available regarding the average length of residence in hospitals of persons who died or were discharged during the year.

(b) *Queensland.* The average residence of those who died during the year was 7 years 248 days for males, and 6 years 147 days for females; of those discharged, 1 year 134 days for males, and 361 days for females.

(c) *South Australia.* The average residence of those who died during the year was 8 years 10 months 17 days for males, and 5 years 7 months 8 days for females; of those discharged, 9 months 25 days for males, and 10 months 15 days for females.

(d) *Western Australia.* The average residence of those who died was 12 years 24 days for males, and 5 years 7 months 1 day for females; of those discharged, 1 year 8 months 20 days for males, and 1 year 7 months and 6 days for females.

(e) *Tasmania*. The average residence of those who died during the year was 11 years 7 months and 17 days for males, and 9 years 2 months and 1 day for females; of those discharged, 11 months and 27 days for males and 1 year 1 month and 24 days for females.

6. *Care of the Feeble-minded*.—An account of the treatment of the feeble-minded, supplied by the Public Health Department of Tasmania, appeared in Official Year Book No. 19, pp. 477 and 478.

7. *Protection of Aborigines*.—For the protection of the aboriginal Australian race there are institutions, under the supervision of Aborigines Boards, where these people are housed and encouraged to work, the children receiving elementary education. The work is usually carried on at mission stations, but many of the natives are nomadic, and receive food and clothing when they call, whilst others but rarely come near the stations. The native race is extinct in Tasmania. The expenditure from Consolidated Revenue in 1936-37 was: New South Wales, £45,039; Victoria, £7,492; Queensland, £57,337; South Australia, £30,071; Western Australia, £30,224; Northern Territory, £11,924; total for Australia, £182,087. According to the latest census taken by the Commonwealth Bureau of Census and Statistics, the numbers of full-blood and half-caste aborigines living in supervised camps in each State at 30th June, 1937, were as follows:—

ABORIGINES.(a)—AUSTRALIA—30th JUNE, 1937.

Particulars.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Northern Territory.	Total.
	No.	No.	No.	No.	No.	No.	No.
Full-bloods ..	461	45	8,225	97	2,646	6,314	17,788
Half-castes ..	3,878	255	2,972	819	1,479	658	(b) 10,159

(a) Living in supervised camps. See letterpress above table.

(b) Including 98 in the Australian Capital Territory.

Particulars regarding total numbers of aborigines in each State will be found in the Chapter dealing with Population.

8. *Royal Life Saving Society*.—In each of the State capitals, "centres" of the Royal Life Saving Society have been established, and in some States sub-centres have also been established in the larger provincial districts. In 1934 an Australian Federal Council of this Society was formed with head-quarters at Melbourne, and each State centre or branch as it is now called is controlled by the new Organization. Saving of life from drowning and other forms of asphyxiation is the object of the Society, and its immediate aims are (a) educative and (b) remedial. The encouragement of swimming and life-saving in schools, colleges, clubs, etc., will bring about a more widespread knowledge of these necessary matters, and there is increasing provision of life-belts, reels, lines, and other first-aid appliances on ocean beaches, wharves and other suitable places. Numerous certificates of proficiency in various grades are issued annually after examination throughout Australia, the numbers for the individual States for 1937 being:—New South Wales, 7,501; Victoria, 1,994; Queensland, 834; South Australia, 631; Western Australia, 1,374; Tasmania, 89; and Fiji, which comes under the control of the Australian Federal Council, 108.

9. *Royal Humane Society*.—The Royal Humane Society of Australasia has for its objects (a) to grant awards for skill, promptness and perseverance in life-saving, where the rescuer has risked his or her life; (b) to provide assistance in cases of danger and apparent death; (c) to restore the apparently drowned; (d) to collect and circulate the latest information regarding approved methods and apparatus for life-saving. Awards of medals and certificates are made numbering about 100 annually. Upwards of 300 lifebuoys have been provided at various places on the coasts, rivers, lakes and reservoirs in the various States. Swimming is encouraged amongst school children, and awards are made for proficiency.

10. **Other Charitable Institutions.**—Owing to variety of name and function of other charitable institutions it has been found impracticable to give detailed results. The aid given in kind—food, clothing, tools of trade, etc.—is considerable, whilst the shelter and treatment afforded range from a bed for a night for casual callers in establishments ministering minor charity, to indoor treatment over long periods in those that exist for the relief of the aged and the infirm. The institutions not so particularized include asylums for the deaf, dumb and blind, infant homes, homes for the destitute and aged poor, industrial colonies, night shelters, crèches, homes of hope, rescue homes, free kindergarten and ragged schools, auxiliary medical charities, free dispensaries, benevolent societies and nursing systems, ambulance and health societies, boys' brigades, humane and animals' protection societies, prisoners' aid associations, shipwreck relief societies, bush fires and mining accident relief funds, etc.

11. **Total Expenditure on Charities.**—Issues of the Official Year Book, prior to No. 24, embodied statistics of expenditure on charities. The returns available, however, included a portion only of direct expenditure by Governments, and, in general, there is lack of harmony in the information available for the different States. Pending the result of further inquiry it has been decided to omit this table from the present chapter.

CHAPTER IX.

PUBLIC HYGIENE.

§ 1. Public Health Legislation and Administration.

Reference to the various public health authorities, Commonwealth and State, their functions, and the legislation administered, may be found in earlier issues of the Official Year Book (see No. 22, pp. 493 to 495).

§ 2. Inspection and Sale of Food and Drugs.

Legislation in force in all States provides for the inspection of food and drugs with the object of assuring that all those goods which are sold shall be wholesome, clean and free from contamination or adulteration; and that all receptacles, places and vehicles used for their manufacture, storage or carriage shall be clean. For further particulars in this connexion, and with respect also to the sale and custody of poisons, reference should be made to Official Year Book, No. 22, pp. 495-497.

§ 3. Supervision of Dairies, Milk Supply, Etc.

1. **General.**—In earlier issues (see No. 22, p. 498), allusion is made to the legislation in force in the various States to ensure the purity of the milk supply and of dairy produce generally.

2. **Number of Dairy Premises Registered.**—The following table shows, so far as the particulars are available, the number of dairy premises registered and the number of cattle thereon. With regard to the latter the figures are not comparable as milch cows only are collected in some States, while others return all cattle depastured on registered premises. In some States also registration is compulsory within certain proclaimed areas only.

DAIRY PREMISES REGISTERED, AND CATTLE THEREON, 1937.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust. (a)	Tasmania.
Premises registered ..	22,124	25,979	29,937	12,670	399	8,406
Cattle thereon ..	1,128,228	565,718	(b)	101,430	11,770	(b)

(a) Premises within a district extending 25 miles north and 90 miles south of Perth only. available.

(b) Not available.

§ 4. The National Health and Medical Research Council.

In 1926, the Commonwealth Government established a Federal Health Council, in accordance with a recommendation of the Royal Commission on Health (1925), "for the purpose of securing closer co-operation between Commonwealth and State Health Authorities". This Council held sessions each year except 1932. In 1936, the Commonwealth Government decided to create a body with wider functions and representation, and the National Health and Medical Research Council was established with the following functions:—

To advise Commonwealth and State Governments on all matters of public health legislation and administration, on matters concerning the health of the public and on medical research:

To advise the Commonwealth Government as to the expenditure of money specifically appropriated as money to be spent on the advice of this Council;

To advise the Commonwealth Government as to the expenditure of money upon medical research and as to projects of medical research generally;

To advise Commonwealth and State Governments upon the merits of reputed cures or methods of treatment which are from time to time brought forward for recognition.

The constitution of the Council consists of the Commonwealth Director-General of Health as Chairman, with two officers of his Department, the official head of the Health Department in each State, together with representatives of the Federal Council of the British Medical Association, the Royal Australasian College of Surgeons, the Australian Association of Physicians, and (jointly) the four Australian Universities having medical schools. A prominent layman and laywoman, appointed by the Commonwealth Government, also serve on the Council.

The first session of the National Health and Medical Research Council met at Hobart in February, 1937.

§ 5. The Commonwealth Advisory Council on Nutrition.

During 1935, Australian delegates to the Assembly of the League of Nations and the International Labour Conference were largely instrumental in inspiring a concerted international inquiry into world-wide problems of nutrition, with a view to improving the public health by greater consumption of protective foods for the prevention of malnutrition and the benefit of agriculture. Within Australia itself, in 1936, the Commonwealth Government appointed a Commonwealth-Advisory Council of Nutrition, under the chairmanship of the Commonwealth Director-General of Health, and composed of experts representing health and agricultural interests, the Commonwealth Council for Scientific and Industrial Research, the University medical schools and the practising medical and dental professions.

The initial inquiries of this Council were framed to enable advice to be given to the Government upon two principal aspects of the problem: (a) the present state of nutrition of the Australian people; and (b) the nature of any evidence that the Australian people are in any degree under-nourished, or that their diet is improperly balanced or improperly prepared.

These inquiries proceeded along two main lines of activity, a survey of household dietaries in Sydney, Melbourne, Brisbane, Adelaide and Perth, and a survey of the nutritional state of children in inland areas. The statistical compilation of the records obtained and parallel work of chemical analysis were carried out by special technical staff at the School of Public Health and Tropical Medicine, Sydney. The local organization of the inquiry was furthered by the appointment of State committees. Five interim reports were published and a final report was presented in September, 1938.

§ 6. Control of Infectious and Contagious Diseases.

1. **General.**—The provisions of the various Acts in regard to the compulsory notification of infectious diseases and the precautions to be taken against the spread thereof may be conveniently dealt with under the headings—Quarantine; Notifiable Diseases, including Venereal Diseases; and Vaccination.

2. **Quarantine.**—The Quarantine Act is administered by the Commonwealth Department of Health, and uniformity of procedure has been established in respect of all vessels, persons and goods arriving from overseas ports or proceeding from one State to another, and in respect of all animals and plants brought from any place outside Australia. In regard to interstate movements of animals and plants, the Act becomes operative only if the Governor-General be of opinion that Federal action is necessary for the protection of any State or States; in the meantime the administration of interstate quarantine of animals and plants is left in the hands of the States. The Commonwealth possesses stations in each State for the purposes of human and of animal quarantine.

Further information concerning the chief provisions of the Act and its administration is given in some detail in earlier issues (see No. 22, p. 500).

3. **Notifiable Diseases.**—A. **General.**—(i) *Methods of Prevention and Control.* Provision exists in the Health Acts of all the States for the observance of precautions against the spread and for the compulsory notification of infectious disease. When any such disease occurs, the local authority must at once be notified, and in some States notification must be made to the Health Department also. The duty of giving this notification is generally imposed first, on the head of the house to which the patient

belongs, failing whom on the nearest relative present, and, on his default, on the person in charge of or in attendance on the patient, and, on his default, on the occupier of the building. Any medical practitioner visiting the patient is also bound to give notice.

As a rule the local authorities are required to report from time to time to the Central Board of Health in each State as to the health, cleanliness and general sanitary state of their several districts, and must report the appearance of certain diseases. Regulations are prescribed for the disinfection and cleansing of premises, and for the disinfection or destruction of bedding, clothing, or other articles which have been exposed to infection. Bacteriological examinations for the detection of plague, diphtheria, tuberculosis, typhoid and other infectious diseases within the meaning of the Health Acts are continually being carried out. Regulations are provided in most of the States for the treatment and custody of persons suffering from certain dangerous infectious diseases, such as small-pox and leprosy.

(ii) *Details by States.* In earlier Year Books (see No. 22, p. 501) information was given concerning the notification, etc., of diseases under State headings.

(iii) *Diseases Notifiable and Cases Notified in each State and Territory.* The following table, which has been compiled by the Commonwealth Department of Health, shows for the year 1937 the diseases which are notifiable in each State and Territory and the number of cases notified. Diseases not notifiable in a State or Territory are indicated by an asterisk.

**DISEASES NOTIFIABLE IN EACH STATE AND TERRITORY AND NOTIFICATIONS
FOR THE YEAR ENDED 31st DECEMBER, 1937.**

Disease.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	Aust. Cap. Ter.	Aust.
Ankylostomiasis ..	*	..	14	..	..	..	..	..	14
Anthrax ..	*	..	..	..	..	1	..	..	1
Beri-Beri ..	*	*	*	*	*	*	7	*	7
Bilharziasis ..	..	..	..	..	..	..	..	..	..
Cerebro-spinal Meningitis ..	17	20	4	..	..	..	..	..	43
Cholera ..	..	..	..	2	..	..	..	..	..
Coastal Fever (a) ..	*	*	2	..	..	..	..	..	2
Dengue Fever ..	..	..	..	..	..	..	56	..	56
Diphtheria ..	4,253	3,040	925	774	1,166	305	19	46	10,530
Dysentery (b) ..	*	2	1	23	1	2	1	..	30
Encephalitis Lethargica ..	9	4	..	4	1	..	..	..	18
Erysipelas ..	..	*	..	119	3	..	..	..	113
Favus ..	*	..	..	..	..	..	..	..	..
Filariasis ..	..	..	1	..	..	..	..	..	1
Helminthiasis ..	..	1	..	..	..	..	..	..	..
Hydatid ..	..	6	..	..	..	..	..	..	6
Influenza ..	..	..	..	143	..	..	..	..	197
Leprosy ..	3	..	6	..	..	..	54	..	12
Malaria ..	*	4	2	72	2	..	11	..	20
Measles ..	..	..	..	107	..	..	..	167	239
Mumps (c) ..	*	..	..	..	..	..	..	..	107
Plague ..	..	..	..	..	..	..	..	..	..
Polio-myelitis ..	70	1,369	19	85	15	299	..	..	1,857
Psittacosis ..	..	..	..	..	..	..	..	..	..
Puerperal Fever ..	241	30	9	58	20	32	..	..	399
Scarlet Fever ..	2,493	1,567	619	214	627	412	..	7	5,939
Smallpox ..	..	..	..	..	..	..	..	..	..
Tetanus ..	..	13	..	..	..	..	..	..	13
Trachoma ..	..	3	..	..	..	..	..	..	3
Tuberculosis (f) ..	1,779	820	281	331	279	177	3	2	3,672
Typhoid Fever (e) ..	118	50	71	27	51	26	..	..	346
Typhus (Endemic) (f) ..	4	..	7	6	37	..	5	..	123
Undulant Fever (g) ..	2	1	1	..	..	..	..	..	4
Varicella (c) ..	..	..	..	1,223	..	..	8	..	1,231
Well's Disease ..	..	..	20	..	..	..	..	..	20
Whooping Cough ..	..	..	..	684	..	..	86	56	826
Yellow Fever ..	..	..	..	..	..	..	..	..	..

(a) Includes Mossman and Sarina fever. (b) Includes amebic and bacillary. (c) Not notifiable in South Australia after 25th November, 1937. (d) Includes all forms except in New South Wales and Northern Territory where only pulmonary tuberculosis is notifiable. (e) Includes enteric fever and paratyphoid. (f) Cases reported are all of the mild type known as Brill's disease or endemic typhus. (g) Notifiable in New South Wales since 13th August, 1937; Victoria since 14th July, 1937; Queensland since 24th June, 1937; Western Australia since 23rd July, 1937; Tasmania since 9th July, 1937; and the Australian Capital Territory since 25th October, 1937.

B. Venereal Diseases.—(i) *General.* The prevention and control of venereal diseases are undertaken by the States. Each State has a Venereal Diseases Act, or provisions in the Health Act govern the working of the measures taken to combat these diseases. Under these Acts notification has been made compulsory in every State except South Australia, where the Venereal Diseases Act has not yet been proclaimed. Steps have been taken to ensure free treatment by medical practitioners or in subsidized hospitals and clinics. Registered pharmaceutical chemists are allowed to dispense prescriptions only when signed by medical practitioners. Clinics have been established and, in some cases, beds in public hospitals have been set aside for patients suffering from these diseases.

Penalties may be imposed on a patient who fails to continue under treatment. Clauses are inserted in the Acts which aim at preventing the marriage of any infected person or the employment of an infected person in the manufacture or distribution of foodstuffs.

For several years the Commonwealth Government granted a subsidy to each of the States to assist in providing hospital treatment and administrative control of venereal diseases, but this subsidy has been discontinued.

In 1927 a Division of Tuberculosis and Venereal Disease was established in the Commonwealth Department of Health, with a medical officer as Director. This Division ceased to exist in April, 1932.

(ii) *Details by States.* A statement of the preventive provisions in each State together with certain statistical data, appeared in earlier Year Books (see No. 22, pp. 503 and 504).

4. Vaccination.—(i) *Demand for Vaccine.* In New South Wales there is no statutory provision for compulsory vaccination, though in all the other States such provision exists. Jennerian vaccine for vaccination against small-pox is prepared at the Commonwealth serum laboratories in Melbourne. A moderate demand exists for the vaccine in Victoria, but in the other States the normal requirements are small, as is also the proportion of persons vaccinated.

(ii) *Details by States.* In earlier issues of the Year Book (see No. 22, pp. 504 and 505) information was given concerning the provisions regarding vaccination in each State.

5. Commonwealth Serum Laboratories.—The establishment for the preparation of Jennerian vaccine situated at Royal Park, near Melbourne, formerly known as the "Calf Lymph Depot," was in 1918 greatly enlarged by the Commonwealth. The remodelled institution is designated the "Commonwealth Serum Laboratories," and is administered by the Commonwealth Department of Health. The list of biological preparations produced by the laboratories has been extended to cover a wide range, thus forming a valuable national provision for the protection of public health.

6. Health Laboratories.—The Commonwealth Department of Health has established health laboratories at Rabaul in New Guinea, at Lismore in New South Wales, at Bendigo in Victoria, at Townsville, Toowoomba, Rockhampton and Cairns in Queensland, at Port Pirie in South Australia, at Kalgoorlie and Broome in Western Australia, at Launceston in Tasmania and at Darwin in the Northern Territory.

The laboratory at Rabaul, which until 1930 was carried on in conjunction with the hookworm campaign, and was working in close co-operation with the health organization of the New Guinea Administration, was formally transferred to the Administration at the beginning of 1930.

The Bendigo Laboratory, which was the first of these laboratories to be established, was opened in 1922. Besides carrying on the ordinary diagnostic and educational work of a health laboratory it possesses an X-ray equipment, and undertakes the examination, diagnosis and treatment of persons suffering from miner's disease and tuberculosis.

By arrangements between the Commonwealth and Western Australian Governments a special medical survey of persons engaged in the mining industry in Western Australia was carried out in 1925-26 by the Commonwealth Health Laboratory at Kalgoorlie. A further arrangement provided for the re-examination annually of mine employees in the Kalgoorlie district, and, by means of a mobile X-ray unit, in outlying districts. This work is still being carried out.

7. **Industrial Hygiene.**—The Industrial Hygiene Division of the Commonwealth Department of Health was established in December, 1921. Its objects were the collection of reliable data, the investigation of industrial conditions affecting health, and the issue of advice to employers and employees for the improvement of conditions of work and for the safeguarding of health. Publications were issued dealing with the scope of industrial hygiene and with health hazards in industry. With a view to the adoption of a concerted scheme of action and a uniform basis for standards and records throughout Australia, conferences of delegates from the State Health and Labour Departments and the Commonwealth Department of Health were held in 1922, 1924 and in 1927. This Division ceased to exist with the reorganization of the Department in April, 1932.

A special article entitled "Industrial Hygiene in Australia" will be found in Official Year Book No. 18, pp. 522 to 555.

8. **Veterinary Hygiene and Plant Quarantine.**—In 1927 Directors were appointed to control divisions of the Commonwealth Department of Health, which have been created to deal with veterinary hygiene and plant quarantine.

§ 7. Tropical Diseases.

1. **General.**—The remarkable development of parasitology in recent years, and the increase in knowledge of the part played by parasites in human and animal diseases, have shown that the difficulties in the way of tropical colonization, in so far as these arise from the prevalence of diseases characteristic of tropical countries, are largely removable by preventive and remedial measures. Malaria and other tropical diseases are coming more and more under control, and the improvements in hygiene and the production of new synthetic drugs for treatment which science has accomplished, have resulted in a new outlook on the question of white settlement in countries formerly regarded as unsuitable for colonization by European races. In Australia the most important aspect of this matter is at present in relation to such diseases as hookworm, filariasis, dengue fever and malaria, which, although practically unknown in southern Australia, occur in many of the tropical and sub-tropical parts.

A Division of Tropical Hygiene of the Commonwealth Department of Health was established to deal with these diseases and other aspects of tropical hygiene. This Division ceased to exist as such with the reorganization of the Department in April, 1932.

2. **Transmission of Disease by Mosquitoes.**—Information under this heading has appeared in earlier issues (see No. 22, pp. 506 and 507).

3. **Control of Introduced Malaria and Bilharziasis.**—Reference to this subject may be found in earlier Year Books (see No. 22, p. 507).

4. **Hookworm.**—Reference to this subject may be found in earlier Year Books (see No. 25, pp. 416 and 417).

5. **Australian Institute of Tropical Medicine.** The Australian Institute of Tropical Medicine was founded at Townsville in January, 1910. From 7th March, 1921, to 3rd March, 1930, when it was merged in the School of Public Health and Tropical Medicine, Sydney University, the Institute was administered by the Commonwealth Department of Health, and a full account of its activities from its foundation up to 1922 will be found in Official Year Book No. 15, pp. 1010-1012.

6. **School of Public Health and Tropical Medicine, Sydney University.**—The Commonwealth Government, under an agreement with the Sydney University, established a School of Public Health and Tropical Medicine at the Sydney University as from 4th March, 1930, for the purpose of training medical graduates and students in the subjects of public health and tropical medicine. The organization of the Australian Institute of Tropical Medicine at Townsville was merged in the new School, and the staff, equipment and material have been transferred to Sydney.

The work of the School comprises both teaching and investigation. Courses are held for the University post-graduate diploma of public health and the diploma of tropical medicine and tropical hygiene. Lectures are given in public health and preventive

medicine as prescribed for the fifth year of the medical curriculum. Other classes include students in architectural, social, and school hygiene, and lay officers and nurses in the tropical service and missionaries. Three classes of native medical assistants from Papua have attended a special course of instruction at the School.

Investigational work covers a wide field of public health and medical subjects, both in the laboratory and in the field. Field work has been carried out not only in Australia but in co-operation with the local administrations in Papua, New Guinea, Norfolk Island and Nauru. Further details may be found in previous Year Books (see No. 29, p. 334).

7. **Royal Commission on National Health, etc.**—Information concerning the following subjects may be found in previous Year Books (see No. 22, pp. 509 and 510):—(a) Royal Commission on National Health appointed by the Commonwealth Government in 1914; (b) Travelling Study Tours under the League of Nations; (c) International Sanitary Convention; and (d) Far Eastern Epidemiological Bureau, Singapore.

8. **International Pacific Health Conferences, 1926 and 1935.**—In Official Year Books No. 22, page 510, and No. 29, page 334, information was given relating to the First International Pacific Health Conference which met at Melbourne in December, 1926, and the second Conference convened by the Commonwealth Government at Sydney in September, 1935.

§ 8. Organization for the Control of Cancer.

The persistent increase in cancer mortality has led to the development in Australia of a national organization directed towards the control of this disease. Treatment centres, fully equipped to carry out investigation and treatment by all modern methods have been formed at the principal hospitals. A large amount of radium, purchased in 1928 by the Commonwealth Government for use in treatment and research, has been distributed on loan to the treatment centres. Treatment is available to all requiring it irrespective of ability to pay. The work is co-ordinated by the Commonwealth Department of Health. Records of treatment and the results obtained are kept by all treatment centres on uniform lines and are collected and analysed. Close co-operation is maintained between research workers, physicists and bio-chemists and the medical men engaged in the clinical investigation and treatment of the disease so that problems are mutually investigated. An annual conference known as the Australian Cancer Conference is held at which those actively engaged in the campaign against the disease meet for the discussion of problems and the determination of lines of action. The report of this conference is published by the Commonwealth Department of Health and is widely distributed.

At the Melbourne University the Commonwealth Government maintains an X-ray and Radium Laboratory for the purposes of maintenance of the radium and radium apparatus, the production of radon for treatment and research purposes, and the investigation of physical problems of X-ray and radium therapy and protection measures. During the year 1937 a total of 37,077 millicuries of radon were issued by this laboratory and used in the treatment of cancer and in the prosecution of research. Radon Laboratories have been established also at the Universities in New South Wales, Queensland, South Australia and Tasmania. Local physical services in relation to the use of radium and X-rays in treatment have also been established, based on the University in each State and all working in co-ordination with the Commonwealth X-ray and Radium Laboratory.

§ 9. Medical Inspection of School Children.

1. **General.**—Medical inspection of school children is carried out in all the States. Medical staffs have been organized, and in some States travelling clinics have been established to deal with dental and ocular defects.

2. **New South Wales.** A complete system of medical inspection of school children came into operation in this State in 1913. The scheme includes, in country districts, the medical examination of every child at least twice during the usual period of school

attendance (6–14 years). In the metropolitan area, the scheme provides for the full medical examination of all “entrants” and children 13 years of age, and the review of all children found defective between those ages. Parents are notified of the defects found, and urged to have them treated. In the metropolitan area, these notices are reinforced by “follow up” work of school nurses, who also arrange hospital and clinic treatment in many cases.

In 1937 the staff comprised 13 medical officers (including a psychiatrist for the Child Guidance Clinic, and two oculists), 9 dental officers, 8 dental assistants, 8 school nurses and 6 clerical officers. Four medical officers were engaged in country districts, and 7 in the metropolitan area, and of the 9 travelling dental clinics (8 of which were each staffed by a dental officer and dental assistant), 4 were engaged in metropolitan schools and 5 in country districts. One of the metropolitan officers was also engaged half-time at the clinic attached to the Out-patients' Department of the Royal Alexandra Hospital for Children.

Special attention is paid to the supervision of the health of High School pupils, both girls and boys, and High Schools in the metropolitan area, as well as certain country schools, are medically inspected annually.

Every student, before entering the Teachers' College, is medically examined, and any defects found must be remedied before final acceptance. Health supervision is maintained at these Colleges by women Medical Officers—whole-time at the Sydney College and part-time at the Armidale College. Also, a course of lectures on hygiene, which every student attends, is given by these officers.

The medical and psychological examination of delinquent boys brought before the Children's Court is carried out by a male Medical Officer, who examined 982 boys in 1936, and 906 in 1937. In the case of girl delinquents, similar examinations are made by a women medical officer.

Towards the end of 1936 a Child Guidance Clinic was established by the Education Department. This Clinic functions as part of the School Medical Service, a psychiatrist having been appointed to take charge of the work of the clinic. Cases are referred through School Medical officers, teachers, and officers of the Child Welfare Department, no fee being charged for any examinations.

The medical and/or psychological examination of many children referred from schools, also children under the jurisdiction of the Child Welfare Department, Widows' Pensions Branch (Family Endowment Department) and Soldiers' Children Education Board is also carried out by medical officers of this service, either at this Department or at Child Welfare Department institutions. The total examined in this way, including those examined at the Child Guidance Clinic, during 1937, was 1,658.

The following summary furnishes particulars of children medically examined in schools in 1937 :—

Number fully examined (routine inspection)	..	..	46,546
Number reviewed	..	..	20,845
Number fully or partly examined (miscellaneous)	..	..	2,427
Of those examined—percentage notified for defects, medical and/or dental	..	..	40.0 per cent.

These figures do not include record of the medical examination and health supervision of children in residence at the Glenfield Special School for backward children, which is carried out by a women medical officer; or a total of 207 children medically examined at Stewart House Preventorium and the Christmas Camp organized under the Far West Children's Health Scheme.

Periodical and/or regular investigations are carried out into problems affecting the health of children, such as goitre, crippling, mental deficiency, stammering, left-handedness, nutrition, trachoma, acute rheumatism; and special investigations into outbreaks of infectious diseases occurring in schools. The sanitary condition of school buildings is also inspected and reported on.

The above statement does not include record of the numerous medical examinations of teachers, and other Departmental work of a medical nature, done by the School Medical Service.

3. **Victoria.**—The system adopted provides for the medical examination of each child once every three years during its school life. With the doubling of the medical staff in 1925 the Department concentrated on country work, and medical inspection has been undertaken since that date in country and rural districts, reaching the most remote corners of the State. Medical inspection is now undertaken in all high schools, in practically all country State schools, and in about half of the metropolitan State schools, but in only a few of the registered and institutional schools.

Each school is visited once in every three years, and each child examined. At this inspection every child is first weighed and measured, vision and hearing tested, then undressed to the waist and medically examined as for life assurance, but with a fuller investigation of many hygienic factors, which at that age greatly influence the health and growth of the child. Opportunity is also taken to teach the child healthy habits, how to correct faults, also to get its co-operation for the remedying of defects found. In schools with an attendance of 70 or more, the older boys are examined by a medical man and the older girls by a medical woman. School nurses employed by the Department are devoted to "follow-up" work, *i.e.*, visiting the homes and getting treatment for children found defective by the school medical officers. Owing to the smallness of the staff their work is confined to the metropolitan area.

In addition to the medical examination, each child in those schools visited by the school dentist receives dental treatment on entrance to school (if under 8 years of age), and each year thereafter, until it is 12 years of age, when it is left dentally fit. The present staff is arranged so that 3 dentists and 4 dental attendants are always on duty at the Melbourne Dental Centre, where children from the infant classes in the inner metropolitan schools are brought by the teacher for dental treatment. A dentist with a dental attendant and equipment travels along the railway line far enough to give one year's work, using practically every town large enough to provide a day's work as a base. The school committees of the outlying schools are notified of the visit, and the parents are invited to bring to the base all children eligible for treatment, *i.e.*, all children under 8 years of age, and all other children treated by the school dentists on previous visits. The time of another dentist is fully occupied treating the children in the three largest country centres, Bendigo, Ballarat and Geelong. In each of these cities a centre with a dentist, dental attendant and equipment is established for about four months of the year, where children from the infant classes of the neighbouring schools are brought by the teacher or parents. Three dentists with dental attendants are in charge of three fully-equipped dental vans, each of which has an itinerary which it completes each year.

The staff of the medical branch consists of 7 full-time medical officers, 9 dentists, 10 dental attendants and 2 school nurses.

During the year ended 30th June, 1937, 34,162 children and 1,523 teachers were medically examined, and 33,979 children received dental treatment. In addition 6,283 homes were visited by the school nurses.

4. **Queensland.**—The School Health Services Branch, under the direction of the Chief Medical Officer, consists of three sections known as the Medical, Dental and Nursing Sections.

Medical inspection of schools and school children is carried out by one full-time medical officer and one part-time officer under the general direction of the Chief Medical Officer, School Health Services. These officers as far as possible, examine children for cardiac and pulmonary conditions, and in addition, make a thorough examination of all children referred to them by the school nurses: 1,307 were thus medically examined in 1937, and of these 2,430 were notified as suffering from some condition requiring correction.

The nurses now number fourteen. Each nurse is assigned a group of schools, and she is instructed to make a list at each school of those children who she considers should be seen by the medical inspector at his next visit. She supervises the sanitation, cleanliness and ventilation of the school and notifies the head teacher of all infectious or verminous children or those suffering from impetigo, scabies, etc., who are then excluded. During the year 1937, school nurses examined 35,987 children. In the metropolitan area the nurses examine the teeth and report all eligible carious cases to the Dental Hospital for treatment.

The Department has in its employ a staff of fifteen dentists. These officers are each assigned a district, and such district is not changed for three years unless for reasons which the Chief Medical Officer, on the recommendation of the Chief Dental Inspector, considers advisable. During the year 1937, 28,090 children were examined; 40,119 extractions were performed; and there were 53,506 fillings and 18,623 other treatments.

At the Wilson Ophthalmic School Hostel children suffering from trachoma are treated and educated. They are admitted from time to time on the recommendation of the part-time Ophthalmic Officer. Beneficial results have already been obtained. The Institution is situated at Eildon Hill, Windsor, and is fully equipped to treat all types of eye case.

The work of Hookworm Control (the dealing with *ankylostomiasis duodenale* and *Necator Americanus* infestation) throughout the State is under the control of the Director-General of Medical Services and his deputy. This activity has resulted in a marked reduction in the incidence of this dangerous menace on the northern coastal belt. Several sisters of the School Health Services are seconded for hookworm duty. The personnel consists of a microscopist, a health inspector and five trained sisters.

In order to give the same medical and dental facilities to the children of the back country as are obtainable by city dwellers, a Rail Dental Clinic equipped on the most modern lines has been constructed. A motor car is carried on a railway waggon at the rear for use at each stopping place to visit the surrounding villages served by the rail centre. Two road motor clinics have also been provided. One functions in the south-western portion of the State with Charleville as a base, while the other operates in the central-west and the north-western territory using Longreach as the centre. The staff of each clinic consists of one qualified dental surgeon and one motor mechanic.

5. *South Australia*.—The system of medical inspection in force requires the examination of all children attending primary, central, high and technical high schools. Children in the primary schools are examined in grades I, IV, and VII; in the central schools in grade X, while high school children are examined in their second and fourth years. Reports are furnished to the parents of any remediable defects found during these examinations. The medical inspectors meet the parents after the examination of the children and give an address on the prevention and treatment of the conditions which were found during the inspection. After these lectures the parents are given an opportunity to ask questions regarding their children. When there is an epidemic or a threatened epidemic in a district, similar lectures are given and special visits paid to all the schools in that locality. All students are examined before they enter the Teachers' College. Courses of lectures in Hygiene and in First Aid are given to these students.

The medical staff consists of a principal medical officer, one medical inspector and a trained nurse. A psychologist, two dentists and two dental assistants are attached to the Medical Branch. The psychologist, in addition to examining retarded children and supervising their work in the opportunity classes, lectures to the students at the Teachers' College, and examines children referred to her by the Children's Court, by the Women Police, or by the Children's Welfare Department, etc.

During the year 1937, 9,506 children were examined by medical inspectors; of these 301 required notices for defective vision, 52 for defective hearing, and 440 for tonsils and adenoids. Five hundred and seventy-seven children were examined by the psychologist.

6. *Western Australia*.—Under the Public Health Act 1911-1935 the medical officers of health appointed by the local authorities became medical officers of schools and of school children. The principle aimed at is that each child shall be examined twice during its school life, once between the ages of 7 and 8 years and again between the ages of 12 and 13 years. In the Health Department there are two full-time medical officers for schools, whose duty is to conduct medical examinations, and two school nurses are employed. During 1937, 16,293 (8,248 country and 8,045 metropolitan) children were examined. In addition 3,744 metropolitan and 52 country school children were re-examined. There were 123 schools visited in the metropolitan area and 257 in country districts.

Three dental officers visited 40 schools and gave attention to 3,398 children.

7. **Tasmania.**—Tasmania was the first State in Australia to provide for the medical inspection of State school children, its system of inspection having been initiated in 1906. During the year 1931, however, for financial reasons, medical inspection ceased, and the services of all doctors were terminated.

At the present time (1937), two part-time medical officers conduct examinations of school children in Hobart and Launceston, and in addition four nurses visit the homes to advise the parents as to the treatment of defects disclosed by the medical examination. Prior to 1931 the various municipal health officers were employed as medical inspectors visiting country schools, and, in the case of epidemics, these officers paid special visits when required. Country schools were visited by medical officers about once a year. There are six full-time dental officers—working at dental clinics in Hobart and Launceston, and visiting the country schools.

8. **Australian Capital Territory.**—By arrangement education facilities are provided by the Education Department of New South Wales. The Commonwealth Department of Health, however, took over from the State in 1930 the medical inspection of school children and carried out examinations of entrants and those leaving during 1930.

Subsequent to 1931, examinations of entrants and those leaving the primary schools have taken place. During 1937 this examination was supplemented by examinations of all pupils of all rural schools (including Duntroon and Molonglo). Of the 454 pupils examined, 65.9 per cent. had dental defects, 18.9 per cent. had some pathological condition of the nasopharynx, 6.2 per cent. had eye defects, 3.1 per cent. had ear defects, 9.9 per cent. showed some evidence of minor deformity, and 2.2 per cent. were 10 per cent. or more underweight for their height and age. Of the pupils recommended for medical advice 43.2 per cent. received this advice, and 64.2 per cent. of those recommended for dental treatment received such treatment.

§ 10. Supervision and Care of Infant Life.

1. **General.**—The number of infantile deaths and the rate of infantile mortality for the last five years are given in the following table, which shows that during the period 1933 to 1937 no less than 22,859 children died in Australia (excluding Territories) before reaching their first birthday. With few exceptions the rate of mortality in the metropolitan area is consistently greater than that for the remainder of the State. Further information regarding infantile mortality will be found in Chapter XIV. "Vital Statistics"—

INFANTILE DEATHS AND DEATH RATES.

State.	Metropolitan.					Remainder of State.				
	1933.	1934.	1935.	1936.	1937.	1933.	1934.	1935.	1936.	1937.
NUMBER OF INFANTILE DEATHS.										
New South Wales	630	732	602	738	702	1,109	1,277	1,160	1,270	1,230
Victoria ..	549	637	570	605	538	599	605	578	617	553
Queensland ..	180	181	190	185	201	553	521	460	494	482
South Australia ..	129	151	133	123	134	157	150	156	154	163
Western Australia	118	136	139	156	154	172	183	187	202	169
Tasmania ..	52	45	72	53	43	135	144	159	174	159
Australia (b) ..	1,658	1,882	1,706	1,860	1,772	2,725	2,883	2,709	2,911	2,756

RATE OF INFANTILE MORTALITY.(a)										
New South Wales	36.80	44.26	35.51	41.73	38.66	40.96	47.65	41.77	44.56	41.92
Victoria ..	40.68	48.42	43.01	44.06	37.13	40.21	41.24	39.51	40.72	36.28
Queensland ..	41.57	42.36	42.41	37.95	40.21	40.99	41.00	39.51	37.50	34.03
South Australia ..	31.77	39.89	35.11	28.62	30.94	32.11	31.00	31.71	33.38	35.02
Western Australia	34.65	41.25	40.05	44.21	42.40	38.49	40.03	40.23	40.81	33.06
Tasmania ..	45.87	19.54	73.17	50.49	39.71	38.60	42.86	45.74	40.28	42.30
Australia (b) ..	38.14	44.64	39.90	41.18	37.95	39.73	42.97	39.71	41.20	38.21

(a) Number of deaths under one year per 1,000 births registered.

(b) Exclusive of Territories.

During recent years greater attention has been paid to the fact that the health of the community depends largely on pre-natal as well as after care in the case of mothers and infants. Government and private organizations, therefore, provide instruction and treatment for mothers before and after confinement, while the health and well-being of mother and child are looked after by the institution of baby health centres, baby clinics, crèches, visits by qualified midwifery nurses, and special attention to the milk supply, etc.

2. **Government Activities.**—In all the States acts have been passed with the object of supervising and ameliorating the conditions of infant life and reducing the rate of mortality. Government Departments control the boarding-out to suitable persons of the wards of the State, and wherever possible the child is boarded-out to its mother or near female relative. Stringent conditions regulate the adoption, nursing and maintenance of children placed in foster-homes by private persons, while special attention is devoted to the welfare of ex-nuptial children. (See also in this connexion Chapter VIII. "Public Benevolence".) Under the provisions of the Maternity Allowance Act 1912-1937, a sum of £4 10s. is payable to the mother in respect of each confinement at which a living or viable child is born, provided the total income of the claimant and her husband for the period of twelve months preceding the date of the birth did not exceed £247. Where there are already one or two children under 14 the amount payable is £5, with an income limit of £263, and where there are three or more other children under 14 the amount payable is £7 10s. with an income limit of £338. Further particulars regarding Maternity Allowances are given in Chapter XXVII. "Public Finance".

3. **Nursing Activities.**—(i) *General.* In several of the States the Government maintains institutions which provide treatment for mothers and children, while, in addition, subsidies are granted to various associations engaged in welfare work.

(ii) *Details by States.* In earlier issues of the Year Book (see No. 22, pp. 515 and 516) information, with certain statistical data, concerning the activities of institutions in each State may be found.

(iii) *Summary.* The following table gives particulars of the activities of the Baby Health Centres and the Bush Nursing Associations :—

BABY HEALTH CENTRES AND BUSH NURSING ASSOCIATIONS, 1937.

Heading.	New South Wales.	Victoria. (a)	Queens- land. (a)	South Australia.	Western Australia. (a)	Tas- mania.	Aust. Capital Territory. (a)	Total.
Baby Health Centres—								
Metropolitan No.	51	70	15	42	13	2	..	193
Urban-Provincial and Rural No.	121	105	75	18	10	18	5	352
Total No.	172	175	90	60	23	20	5	545
Attendances at Centres ..	No. 743,267	491,047	199,705	101,152	91,263	26,383	4,235	1,657,052
Visits paid by Nurses ..	No. 70,172	70,943	12,794	26,646	19,426	13,527	1,457	214,965
Bush Nursing Association—Number of Centres ..	58	70	13	(b) 30	6	18	..	195

(a) Year ended 30th June.

(b) District Trained Nursing Society.

The number of attendances at the Baby Health Centres has increased very considerably in recent years. The following are the figures for the years 1932 to 1936 :—1932, 1,200,380 ; 1933, 1,232,887 ; 1934, 1,178,957 ; 1935, 1,355,300 ; and 1936, 1,512,198.

CHAPTER X.

DEFENCE.

§ 1. Military Defence.

1. *State Systems.*—A detailed historical account of the Australian defence forces prior to Federation will be found in Official Year Book No. 2, pp. 1075–1080. See also Official Year Book No. 12, p. 999.

The strength of the military forces of the States on the 31st December, 1900 (the eve of Federation) was :—New South Wales, 9,338 ; Victoria, 6,335 ; Queensland, 4,028 ; South Australia, 2,932 ; Western Australia, 2,696 ; Tasmania, 2,024 ; total for Australia, 27,353. This total was exclusive of cadets, reservists and rifle club members.

2. *Commonwealth System.*—(i) *General.* Under the terms of the Constitution Act 1900, the Commonwealth took over control of defence matters in March, 1901. The growth of the Commonwealth Military Forces may be considered to have taken place in six phases, viz. :—

- (a) The first phase, i.e., the welding together of the military forces of the States into one homogeneous army, was entrusted by the Government in 1902 to Major-General Sir Edward Hutton, K.C.B., K.C.M.G., and a sound foundation was laid, upon which the subsequent organization and training were based.
- (b) The second phase was the introduction of Universal Training in 1911. During the year 1909 a measure providing for universal training was enacted, and the scheme came into force in 1911 after the advice and recommendations of Lord Kitchener had been obtained. By the Defence Acts of 1903 and 1904 all male inhabitants between the ages of 18 and 60 years were made liable to serve in Australia with the defence forces *in time of war*. Subsequent legislation made training and service compulsory up to the age of 26 years *in time of peace*. By the Act of 1909 the principle of universal liability to training was made law for the first time in any English-speaking community. More detailed reference to these matters will be found in Official Year Book No. 12, p. 999 *et seq.*
- (c) The third phase, Divisional Organization, came into operation from the 1st May, 1921. Under this system a war organization, evolved from the Australian Imperial Force, was applied to peace conditions, with a minimum of permanent personnel. Numbers of units and formations were altered to correspond with those of the A.I.F. and every effort was made to maintain the traditions established by those units in the Great War.
- (d) The fourth phase, which was initiated by the Government in 1922, entailed the reduction of the Divisional Organization to a nucleus force.
- (e) The fifth phase, the suspension of all compulsory obligations *in time of peace* (under Part XII. of the Defence Act) and the reconstitution of the forces on a basis of voluntary enlistment, was brought into operation as from 1st November, 1929. The Divisional Organization was retained, but the peace nucleus was reduced from 48,000 Citizen Forces and 16,000

Senior Cadets to 35,000 Militia Forces and 7,600 Senior Cadets, by reductions in the training establishments of units and by ceasing to maintain certain light horse regiments and infantry battalions. The peace nucleus of the Militia Forces was further reduced to 30,000 in 1931.

- (f) The sixth phase was initiated by the Government in July, 1936, whereby authority was given to raise the training strength of the Militia to 35,000, maintaining the Senior Cadets at 7,000. This strength was attained by December, 1936. The Divisional organization was retained.

Certain light horse regiments and infantry battalions which ceased to be maintained in the fifth phase, and were linked with other light horse regiments and battalions, were now resuscitated.

In addition certain new units were organized as a first step towards the modernization of the field army and coast defences. These units included light horse machine gun regiments and anti-aircraft and search-light units.

(ii) *Military Population.* The following particulars showing the numbers of males of military age in the population of Australia, as at the Census of the 30th June, 1933, are of interest. The total number of cadet age, between 12 and 18 years, was 371,000; at citizen soldier age, between 18 and 26 years, 482,000; and between 26 and 35 years, 472,000; making a total of 954,000 between the ages of 12 and 35, which is considered the best period for military service. It is estimated that 620,000 of the males between the ages of 18 and 35 were unmarried or widowers without children, and 334,000 were married or widowers with children. In addition to the abovementioned, there were 972,000 males between the ages of 35 and 60 in Australia at the 1933 Census.

(iii) *Allotment of Units.* The organization is territorial, and the divisions are based upon infantry units. There are 50 battalions, forming 14 brigades. The areas have approximately equal numbers of males of citizen soldier age, and each furnishes a battalion of infantry, and a proportion of other troops.

ALLOTMENTS OF UNITS TO AREAS, 31st DECEMBER, 1937.

Battalion Areas.																
Providing the undermentioned Units—																
State.	Military District.	Number of Infantry Brigade Areas.	Infantry Battalions.	Light Horse Regiments.	Light Horse Machine. Gun Regiments.	Armoured Car Regiment.	Royal Australian Artillery (Militia)						Royal Australian Engineers (Militia).			
							Field Artillery Batteries.	Medium Artillery.	Heavy Artillery.	Artillery Survey.	Anti-aircraft Battery.	Companies.	Troops.	Companies.		
New South Wales ..	2nd	5	17	5	2	..	18	1	3	1	4	1	1	5	3	2
Victoria ..	3rd	5	17	4	1	1	17	1	3	1	3	1	..	5	3	1
Queensland...	1st	2	7	3	..	..	6	..	..	..	2	..	..	2	1	..
South Aus- tralia ..	4th	1	3	2	1	..	4	..	..	..	1	..	..	1	1	..
Western Aus- tralia ..	5th	1	4	1	..	..	3	..	..	1	3	..	..	1	..	1
Tasmania ..	6th	..	2	1	..	..	2	..	..	..	1	..	..	1	..	1
Total ..	..	14	50	16	4	1	50	2	6	3	13	2	1	15	8	7

ALLOTMENTS OF UNITS TO AREAS, 31ST DECEMBER, 1937—continued.

		Battalion Areas.														
		Providing the undermentioned Units—														
State.	Military District.	Anti-aircraft Searchlight Company.	Signals.		Tank Corps. Tank Section.	A.A.S.C.				A.A.M.C.				A.A.O.C. Units.	A.A.V.C. Sections.	Army Pay Corps.
			Sections.	Troops.		Supply Companies.	Mechanical Transport Companies.	Supply Sections.	Mechanical Transport Sections.	Field Ambulance.	Field Hygiene Sections.	Casualty Clearing Stations.	Garrison Companies.			
New South Wales	2nd	..	26	5	I	3	3	..	..	7	3	I	I	8	4	I
Victoria	3rd	I	23	5	..	3	2	..	..	7	2	I	I	7	4	I
Queensland	1st	..	7	I	..	I	I	..	..	3	I	..	2	3	I	I
South Australia	4th	..	3	I	..	..	..	..	..	2	I	..	I	5	I	I
Western Australia	5th	..	5	..	..	..	..	I	I	I	I	..	I	3	..	I
Tasmania	6th	..	2	..	..	..	..	I	I	I	I	..	I	3	..	I
Total	..	I	66	12	I	8	8	2	2	21	10	2	7	29	10	6

(iv) *Strength of Military Forces.* (a) *Districts.* There was little alteration in the numbers serving in the Australian military forces from the institution of the Commonwealth to the year of the introduction of the compulsory training system. From 1913 to 1918, however, the annual increase was considerable. As a result of the International Conference which met at Washington on the 11th November, 1921, it was decided to continue the universal training law, but its operation was restricted to the more populous centres and to certain quotas only. From 1st July, 1922, to 30th June, 1925, training in the Senior Cadets was limited to two quotas instead of four, and in the Citizen Forces to two quotas instead of seven. On 1st July, 1925, Senior Cadet training was reduced to one quota only, while Citizen Force training was increased to three quotas. These conditions remained in force until 1st November, 1929, when the constitution of the forces on a voluntary basis was adopted. During the period last mentioned, Senior Cadet training commenced on 1st July of the year in which Senior Cadets reached the age of 17 years, and on 1st July of the following year they were allotted to the Citizen Forces, in which training continued until the 30th June of the year in which they attained the age of 21 years. Notwithstanding the reduction in training, all males residing within 5 miles of a training centre were required to register during the months of January or February of the year in which they reached the age of 14 years. Junior Cadet training of boys of the ages of 12 and 13 years, which was in abeyance during the years 1922-23 and 1923-24, was also supervised by the Defence Department during the period 1st July, 1925, to 31st October, 1929.

Under the voluntary enlistment system now in force men from 18 to 40 years of age may be enlisted. The first period of enlistment is for three years, and on its completion, the member concerned may be re-engaged for successive periods of two or three years until he reaches the age for retirement (48 years). The normal period of training is 12 days per annum (including 6 days in camp of continuous training).

The Senior Cadet Corps, in which enrolment is voluntary, is organized on the following basis:—(a) Detachments affiliated with Militia Units: Light Horse, Nil; Infantry, Signals and A.S.C., 25 per cent. of the establishment of the Militia Unit; Other Arms, 20 per cent. of the establishment of the Militia Unit; and (b) Detachments consisting of pupils attending approved educational establishments. The ages for enrolment in the regimental detachments are 16 and 17 years, and in the school detachments over 14 years.

TRAINING STRENGTH OF MILITARY FORCES.

(a) District.	1901. (b) 1/3/01.	1913. 30/6/13.	1922. 31/12/22.	1934. 31/3/34.	1935. 31/12/35.	1936. 31/12/36.	1937. 31/12/37.
Army Head-Qrs. (Melbourne) ..	..	(c) 277	(c) 499	(d) 71	(d) 86	(d) 105	(d) 143
1st (Q'ld.) ..	4,310	4,625	4,319	3,506	3,178	4,281	4,527
2nd (N.S.W.) ..	9,772	12,105	14,561	10,881	10,297	13,018	13,474
3rd (Vict.) ..	7,011	10,840	11,117	9,911	9,641	11,748	11,755
4th (S. Aus.) ..	2,956	3,228	3,452	2,261	2,202	2,720	2,796
5th (W. Aus.) ..	2,283	1,685	2,018	1,739	1,400	2,612	2,637
6th (Tas.) ..	2,554	1,777	1,190	1,305	1,276	1,579	1,611
Total ..	28,886	34,537	37,156	29,674	28,080	36,063	36,943

(a) Approximately coterminous with boundaries of States. (b) Date of taking over the military forces from States by Commonwealth. (c) Including cadets at Royal Military College of Australia and Staff Corps Officers abroad, unallotted, or training with other Commonwealth Departments. (d) Including cadets at Royal Military College of Australia.

(b) *Various Arms.* The numbers of the different arms of the service on the 31st December, 1937, were as follows:—

**ARMS OF THE AUSTRALIAN MILITARY FORCES, ACTIVE LIST,
31st DECEMBER, 1937.(a)**

Head-quarters Staffs ..	..	159	Survey Corps ..	..	25
Staff Corps ..	..	252	Field Engineers ..	..	1,290
Corps of Staff Cadets ..	..	67	Fortress Engineers ..	..	396
Instructional Corps ..	..	614	Anti-aircraft Searchlight Com- pany ..	..	19
Light Horse ..	..	4,412	Signals ..	..	1,321
Light Horse (Machine Gun) Regiments ..	..	1,076	Infantry ..	..	16,213
Armoured Car Regiment ..	..	150	Tank Corps ..	..	49
Royal Australian Artillery ..	..	699	Army Service Corps ..	..	1,719
Field Artillery ..	..	4,424	Army Medical Corps ..	..	1,400
Medium Artillery ..	..	413	Army Ordnance Corps (b) ..	..	344
Heavy Artillery ..	..	941	Army Veterinary Corps ..	..	195
Anti-Aircraft Artillery ..	..	282	Army Pay Corps ..	..	33
Artillery Survey ..	..	166	Provost Staff ..	..	12
Royal Australian Engineers ..	..	272			
			Total ..	..	36,943

(a) Excluding civilian staff.

(b) Includes Ordnance Officers and Artificers.

(c) *Classification of Land Forces.* The following table shows the strength of the land forces in each State, classified according to nature of service, on the 31st December, 1937.

**DISTRIBUTION OF LAND FORCES.(a) ACTIVE AND RESERVE LISTS,
31st DECEMBER, 1937.**

Branch of Service.	Army Head- quarters.	1st Military District. (Qld.)	2nd Military District. (N.S.W.)	3rd Military District. (Vic.)	4th Military District. (S. Aus.)	5th Military District. (W. Aus.)	6th Military District. (Tas.)	Total.
Permanent Forces ..	(b) 137	269	945	567	101	220	80	2,319
Militia Forces ..	6	4,258	12,529	11,188	2,695	2,417	1,531	34,624
Engineer and Railway staff Corps ..	2	9	11	12	11	9	4	58
Unattached List of Officers ..	4	21	55	57	10	6	9	162
Reserve of Officers ..	..	799	1,862	1,705	453	349	166	5,334
Chaplains ..	4	36	56	59	26	20	15	216
Total ..	153	5,392	15,458	13,588	3,296	3,021	1,805	42,713

(a) Excluding civilian staff.

(b) Including cadets at Royal Military College of Australia.

(d) *Militia Forces and Senior Cadets, by Formations.* The following table shows the strength of Militia Forces and Senior Cadets, by formations, at the 31st December, 1937:—

**STRENGTH OF MILITIA FORCES AND SENIOR CADETS, BY FORMATIONS,
31st DECEMBER, 1937.**

State.	Military Formation.	Militia Forces.	Senior Cadets.	
			Regimental Detachments.	Educational Establishments.
Victoria ..	Army Head-quarters ..	6	..	..
Queensland ..	Field Troops, 1st Military District ..	4,004	422	657
Queensland ..	1st District Base ..	254	23	..
New South Wales ..	1st Cavalry Division ..	2,557	55	57
New South Wales ..	1st Division ..	4,259	434	549
New South Wales ..	2nd Division ..	4,750	739	899
New South Wales ..	2nd District Base ..	903	125	..
Victoria ..	2nd Cavalry Division ..	2,030	73	..
Victoria ..	3rd Division ..	4,551	680	927
Victoria ..	4th Division ..	4,069	516	428
Victoria ..	3rd District Base ..	538	68	..
South Australia ..	Field Troops, 4th Military District ..	2,598	270	403
South Australia ..	4th District Base ..	97	9	..
Western Australia ..	Field Troops, 5th Military District ..	2,155	276	252
Western Australia ..	5th District Base ..	262	36	..
Tasmania ..	Field Troops, 6th Military District ..	1,403	212	132
Tasmania ..	6th District Base ..	128	19	..
	Total ..	34,624	3,957	4,304

(e) *Numbers who served under Compulsory Provisions.* In earlier issues of the Year Book (see No. 22, pp. 578-579) tables were published showing the numbers registered and training under the compulsory system, distinguishing Citizen Forces and Senior Cadets.

(v) *Administration and Instruction.* The staff provided for the administration and training of the various arms consists of 252 officers (Staff Corps), 80 quartermasters, and 511 warrant and non-commissioned officers (Australian Instructional Corps).

(vi) *Royal Military College.* This College was established in 1911 at Duntroon in the Australian Capital Territory for the purpose of providing trained officers for the permanent forces. In January, 1931, the College was transferred to Victoria Barracks, Sydney, but it returned to Duntroon early in 1937. Admission is by open competitive examination. On the 31st December, 1937, the Australian cadets in training numbered 55, 20 of whom were admitted in 1937. In addition, 20 are being trained for the New Zealand Permanent Forces under an arrangement made in 1933 with the Government of that Dominion. Further particulars respecting the College are given on page 915 of Official Year Book No. 15.

(vii) *Railways and Defence.* A War Railway Council, consisting of military and railways officers, was instituted in 1911. Its chief duties are to furnish advice and information regarding railway transport for military purposes, and to secure co-operation between the Defence Department and the Railway Departments in regard to concentration and mobilization of troops. To prevent delay in the transport of troops, particularly

that caused by the transshipment of baggage and implements of war, the Council has recommended the adoption of a uniform railway gauge on lines linking up the State capitals. An Engineer and Railway Staff Corps has been instituted, and numbered 55 officers on 31st December, 1937. Further details will be found in Official Year Book No. 6, p. 1070.

(viii) *Rifle Clubs*. On the 30th June, 1937, there were in the Commonwealth 1,173 rifle clubs with a membership of 50,241, and 91 miniature rifle clubs having a membership of 2,763. Members of rifle clubs must fire an annual course of musketry, but do not undergo any systematic drill.

For the purposes of administration rifle club activities were placed under the control of the Military Board on the 1st March, 1931. Government Grants are made for the construction and maintenance of rifle ranges, etc., and 200 rounds of ammunition are issued free to each efficient member annually.

§ 2. Naval Defence.

1. *State Systems*.—Information regarding naval defence systems prior to 1901 will be found in Official Year Book No. 2, p. 1084.

2. *The Present System*.—(i) *General*. An outline of the development of Australian naval policy was given in Official Year Book No. 3, p. 1060, and No. 12, p. 1012. Some account of the building of the Australian Fleet, the proposed and modified cost thereof, the compact with the Imperial Government, etc., appears in Official Year Book No. 15, pp. 921 *et seq.* At the end of 1933, arrangements were made between His Majesty's Governments in Great Britain and Australia for a Flotilla Leader (*Stuart*), and 4 Destroyers (*Vampire*, *Vendetta*, *Voyager* and *Waterhen*) to be lent from the Royal Navy to the Royal Australian Navy. These vessels arrived at Sydney in December, 1933.

H.M.A.S. *Brisbane*, which became over-age in 1932, has been replaced by a ship of the *Leander* type. The new vessel—H.M.A.S. *Sydney*—7,000 tons and eight 6-in. guns, was commissioned in England on 24th September, 1935, and has now joined the Australian Squadron.

The mine sweepers H.M.A.S. *Jarra* and H.M.A.S. *Swan*, built at Cockatoo Island, were commissioned on 21st January, 1936, and 21st January, 1937, respectively.

The five "S" Class destroyers which were over-age have been disposed of.

To ensure closer co-operation with the Royal Navy, arrangements have been made with the Admiralty for the periodical exchange of a cruiser, thus giving an opportunity for officers and men of the Royal Australian Navy to gain experience in fleet exercises on a large scale.

(ii) *Naval College*. A naval college was established at Geelong in 1913, and was transferred in 1915 to Captain's Point, Jervis Bay, Australian Capital Territory, and thence in 1930 to the Flinders Naval Depot, Victoria. The course is similar to that carried out in naval colleges in England. In February, 1938, there were 55 cadet midshipmen under training. A boy is eligible to sit for examination in the calendar year in which he attains the age of thirteen years, provided he is the son of natural-born or naturalized British subjects. From amongst those qualified the selection committee chooses the number required. The Commonwealth Government bears the whole expense of uniforms, victualling, travelling, as well as that of the educational course. Altogether 184 officers who have passed through the college are now serving with the Fleet.

(iii) *Training Establishments*. Recruits from 16½ to 21 years of age receive their preliminary training at Flinders Naval Depot, Victoria, where, in addition to the entry school, instruction is given in Gunnery and Torpedo, Signals and Wireless Telegraphy, Engineering, etc.

(iv) *The Naval Station.* A description of the limits of the Australia Naval Station is contained in earlier issues of the Official Year Book (see No. 18, pp. 608-9).

(v) *Vessels.* A list of the vessels of the Royal Australian Navy is given hereunder :—

SHIPS OF THE ROYAL AUSTRALIAN NAVY, MARCH, 1938.

Vessel.	Description.	Displacement.	Power.
IN COMMISSION—		Tons.	H.P.
<i>Australia</i>	Cruiser	9,870	80,000
<i>Canberra</i>	"	9,850	80,000
<i>Sydney</i>	"	7,000	72,000
<i>Stuart</i>	Flotilla Leader	1,530	40,000
<i>Vendetta</i>	Destroyer	1,090	27,000
<i>Waterhen</i>	"	1,100	27,000
<i>Cerberus</i>	Motor Boat (Flinders Naval Depot)	61	220
<i>Moresby</i>	Sloop	1,650	2,500
<i>Penguin</i> (late <i>Platypus</i>)	Depot Ship, Sydney	3,455	3,500
<i>Swan</i>	Minesweeper	1,060	2,000
<i>Yarra</i>	"	1,060	2,000
IN RESERVE—			
<i>Adelaide</i>	Cruiser	5,100	25,000
<i>Albatross</i>	Seaplane Carrier	5,000	12,000
<i>Vampire</i>	Destroyer	1,090	27,000
<i>Voyager</i>	"	1,100	27,000
FLEET AUXILIARY—			
<i>Kurumba</i>	Fleet Oiler	7,930	2,000

(vi) *Floating Dock.* In 1926 the Commonwealth Government entered into an agreement with the New South Wales Government whereby the latter, in consideration of the payment of a subsidy of £135,000, constructed at Walsh Island, Newcastle, a floating dock capable of lifting 15,000 tons.

(vii) *Naval Forces.* Besides the sea-going forces, there is a R.A.N. Reserve, which is composed of Citizen Naval Forces. The personnel of the sea-going forces, which was originally largely composed of Imperial officers and men, is now 99.6 per cent. Australian. The strength of the naval forces is given hereunder :—

STRENGTH OF NAVAL FORCES (PERMANENT AND RESERVES), 28th FEBRUARY, 1938.

Description of Force.	Numbers Borne.		
	In Training.	Officers.	Men.
Royal Australian Navy (Sea-going)	..	377	3,962
Royal Australian Naval Auxiliary Services	..	34	151
Cadet Midshipmen undergoing training at R.A.N. College	55	..	..
Royal Australian Naval Reserve (Sea-going)	..	64	..
Royal Australian Fleet Reserve	..	..	391
Royal Australian Naval Reserve	..	203	3,115
Royal Australian Naval Volunteer Reserve	..	86	78

§ 3. Air Defence.

1. **General.**—A statement in regard to the preliminary steps taken in connexion with the development of air defence will be found in Official Year Book No. 18, p. 610.

The Royal Australian Air Force is administered by a Board consisting of three Air Force members and a Finance member. To this Force is entrusted the air defence of Australia, and the training of personnel for co-operation with the naval and military forces. The present establishment of the Force includes the following units :—(a) Headquarters Royal Australian Air Force, with representation in London; (b) a Flying Training School; (c) two Aircraft Depots; (d) seven service landplane squadrons and one service amphibian squadron.

2. **Establishment.**—The present approved establishment of the Permanent Air Force is 256 officers and 2,222 airmen, and of the Citizen Air Force, 85 officers and 314 airmen. Four aerodromes are under the control of the Air Board; all other aerodromes and air routes have been taken over by the Controller of Civil Aviation.

3. **Air Routes.**—Aerodromes and emergency landing grounds have been prepared between the capital cities and on certain parts of the coast for service and civil purposes. At the 30th April, 1938, 256 Government aerodromes and emergency landing grounds had been prepared and 211 licensed public aerodromes were also available for use.

4. **Civil Aviation.**—Details regarding the formation and activities of the Civil Aviation Department will be found in Chapter V., Section D. Aviation.

§ 4. Expenditure on Defence.

The following table shows the expenditure on defence in 1901-2 and during each of the last five years. The figures are exclusive of war services and of interest and exchange on loans. Details of the expenditure of the Defence Department and the cost of the war, repatriation and war services are given in Chapter XXVII.—Public Finance.

DEFENCE EXPENDITURE (EXCLUDING WAR SERVICES).—AUSTRALIA.

Item.	1901-2.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38. (a)
	£.	£	£	£	£	£
Central Administration ..	5,594	20,307	21,663	24,891	31,504	31,900
Naval	178,819	1,646,430	1,098,303	2,371,187	2,577,381	3,005,500
Military	732,620	1,236,716	1,328,504	1,810,731	2,232,088	2,359,760
Air Services—						
R.A. Air Force	..	409,413	535,938	783,408	1,162,546	1,902,490
Civil Aviation	..	133,517	164,439	185,644	425,676	363,900
Munitions Supply Branch ..	..	321,162	415,939	451,093	490,326	762,880
Rifle Clubs and Associations ..	47,653	31,662	34,781	36,796	55,009	66,070
Principal Supply Officers Committee	..	..	..	..	2,912	7,500
Special Appropriations—						
Naval Construction	..	Cr. 9,341	513,124	663,852	550,285	136,329
Reconditioning Equipment and Purchase of Aircraft Equipment	..	365,605	81	1,427	1,427	..
Arms, Armament, Aircraft, Munitions, Equipment and Reserves	..	..	361,627	552,406	408,582	1,742,918
Defence Works, Buildings and Sites	..	..	79,324	132,767	121,404	570,840
Development of Civil Aviation ..	..	1,933	997	120	..	575,614
	958,692	4,157,494	5,457,800	7,014,432	8,065,142	11,535,201

(a) Estimated.

In addition to the above, £8,429 was expended from Revenue on war services directly under the control of the Defence Department in 1936-37, and the estimated expenditure in 1937-38 was £20,950.

The total cost of war services including interest, sinking fund, war pensions, repatriation, etc., will be found in Chapter XXVII., Part B § 5—Cost of War and Repatriation.

§ 5. Munitions Supply.

1. *General*.—A statement dealing with the powers and functions of the Munitions Supply Board is given on p. 612 of Official Year Book No. 18.

2. *Factories*.—(i) *General*. The Explosives Factories at Maribyrnong, Victoria, which manufacture cordite and high explosives for cartridges and artillery ammunition, aeroplane dopes, nitro-benzine, and special paints, were established in 1911. The staff at 30th June, 1937, numbered 423.

The Clothing Factory at Melbourne, Victoria, which had a staff of 397 employees on 30th June, 1937, commenced output in July, 1912, and since that date has been able to supply the whole of the uniform clothing and head gear required for the Defence forces and the Postmaster-General's Department. It also supplies clothing required by State Departments and local public bodies.

The Small Arms Factory at Lithgow, New South Wales, which was opened on 1st June, 1912, and delivered the first instalment of Australian arms in May, 1913, had on its pay roll on 30th June, 1937, 328 employees. Rifles and machine guns for land and air services are being produced, and provision has been made for the manufacture of pistols.

On the 1st January, 1927, the Defence Department entered into possession by purchase of the works of the Colonial Ammunition Company Limited at Footscray, Victoria. As from the 1st July, 1928, this establishment, known as the Small Arms Ammunition Factory, was amalgamated with the Gun Ammunition Factory, and this group is now known as the Ammunition Factories, where in addition to rifle and pistol ammunition, big gun fuses, detonators, cartridge cases and aircraft bombs are also produced. Brass and other non-ferrous metals required for munitions manufacture are rolled at this factory. The staff at 30th June, 1937, numbered 818.

At the Ordnance Factory, Maribyrnong, Victoria, established in 1924, provision is made for the production of guns, shells, gun carriages and military vehicles. This group includes a well equipped forge and woodworking and electrical shops. The number of employees at 30th June, 1937, was 695.

(ii) *Investment in Factories*.—Up to 30th June, 1937, the capital invested in the factories now in operation was approximately as follows:—Small Arms Factory, £858,239; Explosives Factories, £985,690; Clothing Factory, £106,997; Ammunition Factories, £836,817; and Ordnance Factories, £994,475.

3. *Research Laboratory*.—At Maribyrnong, Victoria, a Research Laboratory has been established consisting of seven main sections, i.e. general chemistry, explosives and ammunition, timber, metallurgy, metrology, chemical defence and physics (including optics and electrical). Plant, buildings, fittings and furniture were valued at £142,445 on 30th June, 1937, and the staff at the same date numbered 80.

4. *Inspection Branch*.—The Inspection Branch is charged with the examination of all classes of munitions during manufacture to ensure conformity with approved service designs and requirements. The head-quarters is at Maribyrnong, Victoria, and each Munitions Factory has its complement of examiners. A General Stores Section is responsible for the examination of textiles, clothing and equipment. At Port Wakefield, South Australia, is the extensive Artillery Proof and Recovery Range, where guns and shells are tested by firing. The capital invested as at 30th June, 1937, was £121,411, and the staff at the same date numbered 95.

§ 6. Remount Depot.

Information in regard to the establishment of this branch of activity is contained in earlier issues of the Official Year Book (see No. 18, p. 613). When war was declared in 1914 little difficulty was experienced by the Remount Service in coping with the enormous task of obtaining and training horses for the mounted units of the A.I.F. and in providing for the shipment of horses to Egypt and India as required.

§ 7. Australian Contingents.

1. **General.**—In earlier issues of the Year Book an account was given of the composition, etc., of the Australian contingents dispatched for service in the New Zealand and Sudan Campaigns, in South Africa, China, and the Great War of 1914-18 (see Official Year Book No. 12, pp. 1019 *et seq.*).

2. **Australian Troops (Great War).**—Particulars of the enlistments, casualties, honours and decorations won, and engagements of the Australian Imperial Force during the Great War were given in Official Year Book No. 16, pp. 628 *et seq.*

§ 8. War Gratuity.

Reference was made in earlier Year Books (see No. 15, p. 930) to the bonus payable in accordance with the War Gratuity Acts of 1920 as a war service gratuity to soldiers and sailors who served in the Great War. Owing to limitations of space this information cannot be repeated, but it may be noted that the gratuity was paid in Treasury Bonds, maturing not later than 31st May, 1924, and bearing interest at 5½ per cent. In necessitous cases payment was made in cash when desired by the person entitled. The first gratuities were made available about the beginning of June, 1920. The total amount paid to 30th June, 1937, was £27,510,935, and bonds amounting to £13,888 had not been redeemed.

§ 9. Special Defence Legislation.

Information regarding special defence legislation enacted by the Commonwealth Government during the War was given in Official Year Book No. 15, p. 930. It may be pointed out here that the War Precautions Act Repeal Act of 1920 repealed the Act 1914-1918, but a limited number of matters dealt with under the original Act were provided for under the War Precautions Act Repeal Act of 1920-1928 or by regulations made thereunder.

CHAPTER XI.

REPATRIATION.

§ 1. General.

An outline of the activities leading up to the formation of the Commonwealth Department of Repatriation was given in Official Year Book No. 15, p. 931, but limits of space preclude its repetition in the present volume. Some account was given also in the Year Book referred to, and in subsequent issues, of the policy and activities of the Department generally, while detailed information was incorporated in regard to such matters as sustenance rates and pensions to soldiers and dependants. (See Official Year Book No. 17, pp. 598 to 601). During the year ended 30th June, 1928, sustenance rates were amended to bring them into line with war pensions rates, and the scale of rates in respect to war pensions was amplified by providing for an allowance to the third or subsequent child at such a rate as will provide, together with pension in respect of that child, a sum of 15s. per fortnight. During 1935, the Government decided to provide from 1st January, 1936, free medical treatment for all ex-soldiers suffering from pulmonary tuberculosis, irrespective of whether such condition was attributable to war service.

The main activities of the Repatriation Commission at 30th June, 1937, were confined to the grant, review and assessment of war and service pensions, the provision of medical treatment, the renewal and repair of artificial replacements and surgical appliances, the grant and review of sustenance and living allowances, and the administration of the Soldier's Children Education Scheme.

§ 2. War Pensions.

1. *General.*—Provision for the payment of war pensions to soldiers and their dependants was made by the Commonwealth Parliament in the War Pensions Act 1914 which came into operation on 21st December, 1914. The maximum pension for a private was fixed at £52 per annum with higher rates for higher ranks. The definition of dependants under the original Act was broadened by a measure passed in 1915, while both these Acts were consolidated by the War Pensions Act 1914-1916, which increased the maximum pension to a private to £3 per fortnight (£78 per annum) with higher rates for higher ranks. Scale rates of pension were definitely laid down for specific disabilities such as in cases of amputation of limbs, etc.

In 1920 the passage of the Australian Soldiers' Repatriation Act repealed the existing legislation and provided, from 1st July, 1920, a flat rate of £4 4s. per fortnight for a 100 per cent. pension for all ranks up to and including that of Lieutenant. The rates for ranks higher than that of Lieutenant were not increased. The main additional increases were :—

- (a) a pension up to £4 4s. per fortnight to widows with dependent children, or, if without dependent children, where circumstances warrant the increased amount; (the invariable practice is to grant the full £4 4s. per fortnight to widows with dependent children).
- (b) a Special Rate of pension of £8 per fortnight to blinded and to totally and permanently incapacitated soldiers; and
- (c) a Special Rate pension, not exceeding £8 per fortnight to tubercular soldiers, subject to certain conditions.

Payment of pension to the full degree of a man's disability in cases where a pre-war disability has been aggravated "to any material degree" by war service was contained in an amending Act of 1921. Hitherto a pension was payable only with respect to the degree of disability actually caused by war service.

A further amendment of the Australian Soldiers Repatriation Act in 1922 made provision for certain "amounts" and "allowances" to limbless soldiers, in addition to existing rates of war pensions, ranging from 7s. to 76s. per fortnight. In certain double amputation cases, an allowance for an attendant was provided at 40s. or 80s. per fortnight, according to the nature of the case. An attendant's allowance was also payable to "spinal cases" at £2 per fortnight. A special rate pension of £8 per fortnight was provided to those soldiers who, although not totally blind, had no useful vision.

During 1925 the Government decided that a permanent pension of not less than £4 4s. per fortnight should be paid to all "members" proved to be suffering from pulmonary tuberculosis on or subsequent to 1st July, 1925, as the result of war service, or as the result of a pre-existing condition having been materially aggravated by war service. On 30th September, 1925, a new Regulation was gazetted, operative from 1st July, 1925, providing for the grant of an allowance, in addition to pension, not exceeding 15s. per fortnight to a soldier in receipt of pension under the Fourth Schedule to the Act with respect to loss of vision in one eye. Both these provisions were made statutory by incorporation in the Amending Act of 1934.

The general reduction of expenditure provided by the Financial Emergency Act 1931 applied also to war pensions. No reduction, however, was made in the rate of pension payment to incapacitated soldiers. The widows and children of soldiers whose death was due to war service and the widowed mothers (who became widows either prior to, or within three years after, the death of the sons) of any deceased unmarried member of the Forces were also exempted from reductions, the necessary economies being effected in payments to other classes of war pensioners. The maximum rate of pension payable on behalf of the child of an incapacitated soldier was reduced to 12s. per fortnight, and a wife married or a child born to an incapacitated member of the Forces subsequent to 1st October, 1931, were excluded from pension benefits. Considerable modifications of the reductions were included in the Financial Relief Acts of 1933 and 1934, and some classes of pension were fully restored.

During 1934 the Second Schedule to the Act was amended to include the Attendants' Allowances previously payable under regulation to blinded soldiers and to provide for eligibility for such allowances in consequence of injury or disease affecting the cerebro-spinal system or disease causing incapacity similar in effect thereto. A further amendment provided that a wife married, or a child born, to a member of the Forces after 1st October, 1931, shall be deemed to be dependants and eligible for pension benefits if the member has died or dies from the results of war service. Certain anomalies concerning the continuance or regranting of pensions were removed.

In December, 1935, the Principal Act was again amended. The principal amendments were in relation to (a) reinstatement of pensions previously commuted; (b) grant of pensions to dependants of deceased members of the forces (whatever the actual cause of death) in cases where at the date of the member's death he was in receipt of a pension under the Second Schedule to the Act or in receipt of pension as a double amputee; (c) removal of the time limit on lodgment of claims under Section 23 (2) of the Act; and (d) to provide relief by way of service pensions to aged members of the Forces, to those members and their families who are unable through mental or physical defects to engage in remunerative employment and are declared permanently unemployable, and to those members and their families who are suffering from pulmonary tuberculosis. The new provisions operated from 1st January, 1936. Financial Relief legislation, which became operative from 1st October, 1936, increased the maximum rate of pension payable to the child of an incapacitated soldier from 12s. to 15s. per fortnight.

Legislation in 1938 removed the Financial Emergency restriction on wives married or children born to incapacitated members of the forces after 1st October, 1931, and war pensions may now be granted from 1st January, 1938, provided that such marriages or births took place on or before 30th June, 1938.

2. **Appeal Tribunals.**—The principal Act was amended as from 1st June, 1929, whereby tribunals were created to hear appeals in regard to war pensions. The War Pensions Entitlement Appeal Tribunal is empowered to hear and decide any appeal by or on behalf of ex-members of the forces or their dependants, against a decision of the Repatriation Commission that an incapacity or the death of an ex-member did not arise out of war service. Two Assessment Appeal Tribunals were created, to hear and decide any appeal against a current assessment or a "Nil" assessment of war pension made by the Repatriation Commission in respect of an incapacity of an ex-member of the forces which had been accepted as rising out of war service. Provision was made by subsequent legislation to enable the Tribunals to hear appeals by certain applicants for service pensions.

3. **War Pensions in Force.**—At the 30th June, 1937, the number of war pensions was 251,806 with an annual liability of £7,599,599. The outstanding figures for 1936–37 were as follows :—

New claims granted during year	..	..	..	..	5,098
Claims rejected (gross) during year	..	..	..	..	9,508
Pensions reviewed during year	..	..	..	..	41,035
Pensions cancelled or discontinued during year	..	..	..	..	12,678
Pensioners died during year	..	..	..	..	2,640
Number of pensions in force at 30th June, 1937	..	..	..	..	251,806
Annual pension liability on the 30th June, 1937	..	..	..	..	£7,599,599

At the 30th June, 1937, special rate pensions of £8 per fortnight were being paid to—

Blinded soldiers	..	..	..	..	..	140
Tubercular soldiers	..	..	..	..	..	916
Totally and permanently incapacitated soldiers	..	..	..	..	..	2,075

An analysis of the total number of new grants during the year reveals the following :—

Members (i.e., ex-soldier pensioners)	..	..	..	..	869
Wives of members	..	..	..	..	1,006
Children	..	..	..	..	2,824
Other dependants	..	..	..	..	399
					5,098

In the following table the number receiving pensions at 30th June, 1937, is shown for each class of pensioner :—

WAR PENSIONS IN FORCE, AUSTRALIA, AT 30th JUNE, 1937.

Class.	Number of Pensioners.
Orphan children	5,084
War widows	9,277
Soldiers	77,076
Children	84,455
Wives	58,547
Parents	16,974
Brothers and sisters	196
Others	197
Total	251,806

4. Number of Pensioners and Expenditure.—The following table shows the number of pensioners at 30th June, 1937, and the places where payments were made during 1936-37:—

WAR PENSIONS.—NUMBER OF PENSIONERS, 1937.

Where Paid.	Incapacitated Members of the Forces.	Dependants of—		Total.	Expenditure.
		Deceased Members.	Incapacitated Members.		
					£
New South Wales ..	25,971	9,260	46,687	81,918	2,634,894
Victoria ..	25,750	8,910	49,644	84,304	2,326,414
Queensland ..	8,668	2,739	16,121	27,528	857,138
South Australia ..	4,343	2,318	8,334	14,995	481,068
Western Australia ..	7,078	2,328	13,480	22,886	680,272
Tasmania ..	3,299	1,294	7,589	12,182	387,511
Total, Australia ..	75,109	26,849	141,855	243,813	7,367,297
London ..	1,652	2,395	3,041	7,088	} 315,792
South Africa ..	51	28	62	141	
New Zealand ..	243	146	325	714	
Other Overseas ..	21	4	25	50	
Total ..	77,076	29,422	145,308	251,806	7,683,089
Payments made in Australia in respect of other countries less amounts received from other countries	..	..	..	..	Dr. 5,563
Total, War Pensions Trust Fund Account	..	..	..	..	7,688,652

The subjoined table shows the numbers of pensions granted, claims rejected, and pensions in force, together with the amount paid in pensions for the years ended 30th June, 1921 and 1931 and for each of the five years ended 30th June, 1937:—

WAR PENSIONS.—SUMMARY, AUSTRALIA.

Year ended 30th June	Pensions Granted.	Claims Rejected.	Pensions in Force.				Amount paid in Pensions.
			Incapacitated Members of the Forces.	Dependants of Incapacitated Members.	Dependants of Deceased Members.	Total.	
							£
1921 ..	25,983	3,388	79,491	93,995	49,051	222,537	7,386,842(a)
1931 ..	11,555	920	75,316	172,389	35,617	283,322	7,996,180
1933 ..	2,693	664	75,244	164,268	30,298	269,810	6,925,830
1934 ..	2,792	609	75,037	162,198	29,719	266,954	7,048,592
1935 ..	4,174	1,869	74,998	158,787	30,276	264,061	7,360,057
1936 ..	5,510	10,200	76,337	153,736	30,062	260,135	7,520,228
1937 ..	5,098	9,508	77,076	145,308	29,422	251,806	7,683,089

(a) Includes payments made from Trust Fund, War Pensions Account, on behalf of other countries less recoveries.

5. Cost of Administration.—The cost of administration in 1936-37 was £279,488 representing 3.25 per cent. of the total cost of benefits disbursed. The administrative costs of the three War Pensions Appeal Tribunals are included in the above figure and totalled £33,928.

§ 3. Service Pensions.

1. *General.*—The payment of service pensions was provided for in the Australian Soldiers' Repatriation Act 1935, and the scheme has operated since 1st January, 1936.

Originally fixed on a lower scale the maximum rate of service pension for a single man was increased from 16th September, 1937, to 40s. per fortnight, and for a man and his wife to 68s. per fortnight, with an additional 5s. per fortnight for each child under sixteen years of age up to four in number. The actual rate payable in any case is determined after taking into consideration all other income and property received or owned by the pensioner in question, and no service pension can be paid in any case where such other income and property has an assessable value, in the case of a single man, of £84 10s. per annum, or in the case of a man and wife, of £169 per annum between them. In addition, no service pension can be paid when the applicant is possessed of property to the value of £400 or more.

If the income from all other sources is less than the annual amounts above shown, then service pensions become payable at such rates as will, with that other income, bring the total income of the pensioner (including service pension) up to the allowed maximum, provided, of course, that such pensions cannot exceed the maximum rates of 40s. per fortnight for a single man or 68s. per fortnight for man and wife, as hereinbefore mentioned.

A female member of the forces was made eligible in 1936 for consideration of a service pension if she embarked for service abroad; previously she must have served in a theatre of war. In the same year an institutional rate of service pension not exceeding 12s. per fortnight was made available. This pension, increased to 14s. from 16th September, 1937, benefited particularly inmates of mental asylums, who were previously excluded from the scheme.

Eligibility for service pensions may be established on the following grounds:—

- (a) Sixty years of age or more, provided the applicant served in a theatre of war, but eligibility on this ground limits payment of service pension to the ex-soldier and not to his wife or children. In the case of a female member of the forces, the qualifying age is 55 years, and service abroad, not necessarily in a theatre of war, is sufficient.
- (b) Permanently unemployable, provided the applicant served in a theatre of war (or, in the case of a female member, served abroad). Under this class pensions may be paid to the ex-soldier, his wife and children—up to four in number.
- (c) Pulmonary tuberculosis, whether the applicant served in a theatre of war or not. Under this class also pensions are payable to the wife and children—up to four in number.

Only those applicants who qualify under Class (c) are entitled to receive both service and invalid pensions at the same time.

2. *Operations during Year.*—The following figures give the important facts of the service pension scheme during 1936–37:—

Claims granted during the year—

Members of the Forces	..	..	..	..	2,893
Wives	..	..	..	..	1,098
Children	..	..	..	..	1,613
					5,604

Claims rejected during the year—

Members of the Forces	..	..	..	..	2,307
Wives	..	..	..	..	1,375
Children	..	..	..	..	2,732
					6,414

Pensions cancelled or discontinued during the year 925

Pensioners died during year 295

Pensions in force at 30th June, 1937 8,489

Annual pension liability on 30th June, 1937 £263,279

§ 4. Medical Treatment of Returned Soldiers Suffering from War Service Disabilities.

At 30th June, 1937, there were 1,701 in-patients and 21,112 out-patients receiving medical treatment. The expenditure to this date was £8,039,997.

§ 5. Miscellaneous.

1. *Summary of Other Departmental Activities.*—The following is a summary of the work of the Department from 8th April, 1918, to 30th June, 1937 :—

(i) *Employment.* Number of applications, 255,490; number of positions filled, 133,272.

(ii) *Vocational Training.* Number of men completed training, 27,696; number in training, nil.

(iii) *Soldiers' Children Education Scheme.* From the inauguration of the scheme in February 1921, up to 30th June, 1937, 20,914 applications for assistance had been received. Of these, 19,461 had been approved of which 12,051 recipients of the benefits had completed their training and 7,410 were undergoing training, while 37 applications were pending and the remainder had been refused or withdrawn.

Up to 30th June, 1937, the expenditure was £1,779,323.

(iv) *Assistance Granted.* The total expenditure incurred during the period from 8th April, 1918, to 30th June, 1937, was £21,464,239, of which £1,676,000 represented loan and £19,788,230 general expenditure. Of the total, the largest amounts were absorbed by medical treatment with £8 million, vocational training with £5 million, and expenses of providing employment, £2½ million.

2. *Expenditure of Department of Repatriation.*—The expenditure of the Department during the twelve months ended 30th June, 1937, was £8,882,865, distributed as follows :—

Repatriation benefits—					£
Loans to soldiers	..	..	..	..	2
Grants to soldiers and general expenditure (including maintenance of training schools, medical institutions, etc.)	..	..	..	..	586,505
Assistance to soldiers in necessitous circumstances	..	..	..	..	33
Allowances to dependants of soldiers not provided for under the Act	..	..	..	..	962
Medical treatment to Home Service personnel	..	..	..	..	200
					587,771
Soldiers' Children Education Scheme	..	..	..	..	98,993
War and Service Pensions	..	..	..	..	7,910,366
Administrative costs—					
Salaries	..	..	..	..	214,670
Contingencies	..	..	..	..	64,818
					279,488
Exchange on Remittances to London and New York	..	..	..	..	6,247
Total					8,882,865

The total expenditure for the previous year was £8,505,554.

3. *Losses of Soldier Settlement.*—Reference to losses incurred in connexion with settlement of returned soldiers and sailors will be found in Chapter IV.—Land Tenure and Settlement.

CHAPTER XII.

THE TERRITORIES OF THE COMMONWEALTH.

GENERAL.

The Territories under the control of the Commonwealth are :—The Northern Territory; the Australian Capital Territory; Papua (formerly British New Guinea); Norfolk Island; the Territory of New Guinea (by Mandate of the League of Nations); Nauru (under joint Mandate of the Commonwealth, Great Britain and New Zealand); the Territory of Ashmore and Cartier Islands; and the Australian Antarctic Territory.

The results of the census of the Territories at the 30th June, 1933, may be found in the separate Census bulletins and parts published by this Bureau.

In each of the external Territories Australian currency is used. In the Territory of New Guinea, however, there is also a local currency consisting of silver shillings, cupronickel sixpences and threepences, and bronze pennies.

THE NORTHERN TERRITORY.

§ 1. Area and Population.

1. *Introductory*.—Upon the extension of New South Wales westward to the 129th meridian in 1827, the Northern Territory was incorporated in that colony, but in 1863 was annexed by Royal Letters Patent to the province of South Australia. With the adjacent islands it was transferred to the Commonwealth on 1st January, 1911. The total area is 523,620 square miles, or 335,116,800 acres.

2. *Population*.—(i) *Europeans*. At the census taken in 1881 there were only 670 Europeans in the Territory. The number increased slowly, reaching its maximum in 1918 with 3,767 persons. At the census of 1933 the white population had decreased to 3,306. This number, however, was 34.5 per cent. greater than the figure at the census of 1921.

(ii) *Non-Europeans*. The number of full-blood non-Europeans, excluding Australian aboriginals, in the Northern Territory on the 30th June, 1933, was 744, of whom 462 were Chinese, the remainder being, mainly, Filipinos (69), Japanese (91), and Malays (59). There were at one time over 4,000 Chinese in the Territory.

The half-caste population recorded at the census of 1933 numbered 800 of whom 743 were half-caste Australian aboriginals.

(iii) *Total Population*. The highest recorded population of all races, except aboriginals, was 7,533 in 1888. The estimated population at 31st December in each of the last five years is given in the following table :—

NORTHERN TERRITORY. - POPULATION (EXCLUSIVE OF ABORIGINALS).

Year.	Males.	Females.	Total.
1933	3,370	1,448	4,818
1934	3,440	1,504	4,944
1935	3,482	1,609	5,091
1936	3,596	1,709	5,305
1937	3,641	1,713	5,354

The Census population (30th June, 1933) was 3,378 males, 1,472 females, total 4,850.

(iv) *Movement of Population.* The following is a summary of movement of population in 1937 (excluding overland migration):—

NORTHERN TERRITORY.—MOVEMENT OF POPULATION, 1937.

Immigration ..	1,733	Emigration ..	1,720	Excess of immi-	.
Births ..	99	Deaths ..	63	gration over	
				emigration ..	13
				Excess of births	
				over deaths ..	36
Increase ..	1,832	Decrease ..	1,783	Net Increase ..	49

The immigration and emigration figures for the Territory during the five years ending 1937 are shown in the following table:—

NORTHERN TERRITORY.—IMMIGRATION AND EMIGRATION.

Year.	Immigration.	Emigration.
1933	516	497
1934	680	582
1935	1,014	881
1936	1,429	1,268
1937	1,733	1,720

(v) *The Aborigines.* A special article contributed by Dr. W. Ramsay-Smith on the subject of the Australian aborigines was incorporated in Year Book No. 3 (pp. 158-176). The Chapter "Population," in Year Book No. 17, contained information regarding the number and distribution of aborigines and the measures taken by the States (in the case of the Northern Territory, by the Commonwealth) to protect them and to conserve their interests. Large numbers of the aborigines in the Territory are still outside the influence of Europeans. The total number of full-blood and half-caste aborigines at 30th June, 1937, was estimated at 16,887, of whom 3,349 were in regular employment. There are fifteen "aboriginal" reserves, comprising an area of 67,244 square miles. (See also the Chapter on Population hereinafter.)

§ 2. Legislation and Administration.

On 1st January, 1911, the Territory was transferred by South Australia to the Commonwealth. The terms were outlined in Year Book No. 15, p. 940. By the Northern Australia Act 1926, the Territory was divided into two parts, Central Australia and North Australia, separated by the 20th parallel of south latitude, each administered by a Government Resident. In addition, Advisory Councils and a Development Commission were provided for. The Act of 1926 was superseded by the Northern Territory (Administration) Act 1910-1933. By this Act the provision made for Advisory Councils was cancelled, and the Development Commission abolished. The administration of the Territory was placed in the hands of an Administrator, residing at Darwin, assisted by a Deputy Administrator, residing at Stuart (Alice Springs). The designation of the latter office was later changed to that of District Officer. The Governor-General is empowered to make ordinances having the force of law in and in relation to the Territory, subject to disallowance by either House of the Commonwealth Parliament. The Territory elects a member to the House of Representatives, who may take part in the debates, but may not vote, except on a motion for the disallowance of any ordinance of the Northern Territory or on any amendment of any such motion.

§ 3. Physiography.

1. **Tropical Nature of the Country.**—The Territory is within the torrid zone, with the exception of a strip $2\frac{1}{2}$ degrees wide which lies south of the Tropic of Capricorn.

2. **Contour and Physical Characteristics.**—The low flat coast-line seldom reaches a height of 100 feet. Sandy beaches and mud flats, thickly fringed with mangroves, prevail. Sandstone, marl and ironstone form the occasional cliffy headlands. The sea frontage of more than 1,000 miles is indented by bays and inlets and intersected by numerous rivers, many of which are navigable for considerable distances from their estuaries.

The principal features of the coast line are enumerated in Year Book No. 1, p. 66; the Rivers in Year Book No. 2, p. 76; the mountains in Year Book No. 3, p. 67; the lakes in Year Book No. 4, pp. 77, 78; the islands in Year Book No. 5, pp. 71, 72; and the mineral springs in Year Book No. 6, p. 65.

Inland, the country generally is destitute of conspicuous landmarks. From the coast there is a general rise southwards to the vicinity of the 17th or 18th parallel of south latitude, where the higher lands form the watershed between the rivers that flow northwards to the sea and those that form the scanty supply of the interior systems. Towards the centre of the continent the land over a wide area is of considerable elevation, and there are several mountain ranges, generally with an east and west trend.

§ 4. Climate, Fauna and Flora.

1. **The Seasons.**—There are two main climatic divisions—the wet season, November to April, and the dry season, May to October, with uniform and regular changes of weather. Nearly the whole of the rainfall occurs in the summer months. Fuller particulars will be found in Year Book No. 6, p. 1116.

2. **Fauna.**—The ordinary types of native Australian fauna inhabit the Territory. As elsewhere on the continent, the higher *Theria* are rare, but marsupials, birds, crocodiles, fresh-water tortoises, snakes (mostly non-venomous), and frogs abound. There are many varieties of freshwater fish and littoral mollusca. Butterflies and beetles are strongly represented. The white ant is a pest, anthills in the Territory sometimes attaining great dimensions. Mosquitoes and sandflies are very troublesome, particularly in the wet season. Native fauna are in some cases protected. Buffalo formerly existed in large herds, but, as pointed out later, their number has been greatly reduced by indiscriminate shooting.

3. **Flora.**—The vegetation is North Australian in type, but a number of the forms belong to the Malayan and Oceanic regions. The timber trees are not of great commercial value, but in the coastal regions tropical vegetation grows luxuriantly to the water's edge. On the wide expanses of plain country in the interior there is little vegetation, the principal orders represented being:—*Euphorbiaceæ*, *Compositæ*, *Convolvulaceæ*, *Rubiaceæ*, *Goodeniaceæ*, *Leguminosæ*, *Urticæ*.

Fuller particulars regarding fauna and flora are given in Year Book No. 6, pp. 1116-7.

§ 5. Production.

1. **Holdings.**—There were on the 30th June, 1937, 837 holdings (leases and licences) in the Northern Territory, covering an area of 217,567 square miles. Of these, 454 were held on pastoral lease or permit, 88 on agricultural lease, the remainder being held on leases for various other purposes. Rents received amounted to £25,923.

2. **Agriculture.**—Up to the present agriculture has made little progress in the Territory, although it has been proved that rice, tobacco, coconuts, mangoes, bananas, cotton, various fodder plants, and peanuts can be successfully grown. Expense of

harvesting is, at present, an obstacle to the economic production of rice, and until labour-saving machinery is procured it cannot be produced with profit. There is a large stretch of first-class coconut land on the coast, but hitherto planting has not been attempted on a commercial scale. For the encouragement of primary production a Primary Producers' Board was established in 1931. Peanuts have become the principal crop. In 1935-36 the yield was 9,989 bags or 267 tons from 1,000 acres and the price averaged 4½d. per lb. in southern markets. Although the acreage was approximately the same the estimated yield for 1936-37 was 438 tons.

3. *Pastoral Industry.*—The pastoral possibilities of certain parts of the Northern Territory were recognized at an early date, and in 1866 stock was brought into the Macdonnell Range country from South Australia. Six years later cattle were moved from Queensland to the northern parts of the Territory, and in 1879 Mr. Giles reached the Katherine River with 2,000 head of cattle and 12,000 sheep from South Australia. For various reasons sheep-raising did not succeed. The cattle industry progressed and became the mainstay of the Territory, a great impetus being given to it in 1917 by the opening of extensive meat works at Darwin. Unfortunately the works closed down in 1920, and are still idle. The number of cattle exported by land from the Northern Territory during the year 1936-37 was about 79,903, and the number imported about 2,572. The cattle industry has been retarded by the ravages of ticks and by the difficulty of travelling stock through waterless country. These difficulties are, however, gradually being overcome, the former by "dipping," and the latter by adding to the number of wells on the various stock-routes and the creation of stock reserves. Buffaloes thrive in the coastal districts, but their number has been greatly reduced by indiscriminate shooting to obtain the hides.

The estimated number of live stock in the Territory in the last five years is given in the table hereunder:—

NORTHERN TERRITORY.—LIVE STOCK.

Year.	Horses.	Cattle.	Sheep.	Pigs.	Goats.	Camels.	Donkeys.	Mules.
1932 ..	33,072	780,121	18,250	449	20,622	438	776	479
1933 ..	33,500	850,867	18,076	307	17,356	344	992	438
1934 ..	35,094	899,679	23,356	626	20,044	319	1,196	496
1935 ..	35,152	900,535	25,483	555	20,455	298	1,056	512
1936 ..	31,056	855,398	11,162	470	17,306	310	1,593	530

4. *Mining.*—(i) *General.* Alluvial gold-digging in the Northern Territory commenced in 1869, and up to the end of 1880 gold to the value of £79,022 had been produced. In 1881 the gold production reached its maximum, the value for that year being £111,945. During the following years it fluctuated considerably, but as long as the alluvial deposits lasted the output was satisfactory. In the transition period from alluvial to reef mining the industry declined considerably. The production of metals other than gold has suffered on account of the vagaries of prices, and the high cost of transport and of white labour. Owing to the exceptionally high price of gold the search for the precious metal has been stimulated in recent years with an increasing annual production. The principal producer of gold in 1936-37 was the Tennant Creek field which steadily progressed during the year. More than 92 per cent. of the total production was raised here, and with the extension of treatment plants the output should continue to expand. A small township has been planned on the field and the population at the 31st March, 1937, was 628, including 135 women and 28 children. Although the mica deposits in the Territory are not exploited systematically or on a large scale, a number of men—mostly southern Europeans—have been engaged in this class of mining and during the year produced more than £11,000 worth of mica.

(ii) *Mineral Production.* The following table shows the value of the total mineral production for the last five years:—

NORTHERN TERRITORY.—MINERAL PRODUCTION.

Year.	Gold.	Tin Ore.	Silver-lead Ore.	Copper Ore.	Mica.	Wolfram.	Tantalite.	Total Value all Minerals.
	£	£	£	£	£	£	£	£
1932-33 ..	4,449	2,519	410	..	10,772	..	..	18,150
1933-34 ..	8,124	9,566	11	..	7,926	3,114	65	28,806
1934-35 ..	44,458	6,036	..	..	15,762	10,380	264	76,900
1935-36 ..	76,001	4,176	..	1,871	7,805	8,748	..	98,601
1936-37 ..	91,543	7,696	..	101	11,003	16,349	226	126,918

In 1934 the Governments of the Commonwealth and the States of Queensland and Western Australia agreed to co-operate in the conduct of a geological and geophysical survey of certain areas in the northern parts of Australia, including the Northern Territory. More detailed reference to the survey and its progress will be found in Chapter XVIII. "Mineral Industry".

5. *Pearl, Bêche-de-Mer, and Other Fisheries.*—In 1884 mother-of-pearl-shell was discovered in the harbour of Port Darwin. Difficulty in working, principally through heavy tides and muddy water, retarded the development of the industry for many years. The production of pearl-shell in 1936-37 amounted to 781 tons of an approximate gross value of £88,000, which represents an increase of £17,000 on the production of the previous year. Most of the yield was obtained from an extensive bed about 20 miles north of Liverpool River, between Goulburn and Elcho Islands, and 34 pearling vessels were licensed. The local pearliers, however, encounter considerable opposition from efficient Japanese fleets.

Three fishing licences and three boat licences were issued during 1936-37 in connexion with bêche-de-mer fisheries. Prices were not remunerative, however, and the production was valued at only £680.

The territorial waters teem with fish, but only eleven fishermen and three boats were employed in maintaining a supply of fish for Darwin for the greater part of the year, the fish retailing at 6d. per lb.

The production of raw salt from the tidal salt pans at Fannie Bay during 1936-37 was 260 tons, valued at £6 10s. per ton. The salt is comparatively free of foreign matter, an analysis revealing an actual sodium chloride content of 98.05 per cent.

§ 6. Land Tenure.

A description of the system of land tenure in force in the Territory will be found in Chapter V.—Land Tenure and Settlement, Official Year Book No. 22.

§ 7. Commerce, Shipping and Air Services.

1. *Trade.*—No record is kept of the trade between the Commonwealth States and Territories. The value of the direct overseas imports and exports for 1901 and for each of the last five years is given hereunder:—

NORTHERN TERRITORY. OVERSEA IMPORTS AND EXPORTS.

Items.	1901.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
	£	£	£	£	£	£
Imports (a) ..	37,539	4,225	28,320	39,870	13,221	58,120
Exports (b) ..	29,191	10,427	6,303	27,411	42,330	26,645

(a) British currency values.

(b) Australian currency values.

The importation of residual oil was mainly responsible for the comparatively heavy imports during the years 1933-34, 1934-35 and 1936-37, while the shipments of pearl-shell increased the values of exports during the past three years.

2. **Shipping.**—The Territory is dependent for its shipping facilities chiefly on the services of vessels trading between Melbourne and Singapore. In addition to pearlers and other small craft, larger vessels make occasional visits, while a sixty-days' service between Fremantle and Darwin is carried out by the *Koolinda*, belonging to the Western Australian State Shipping Service.

NORTHERN TERRITORY.—SHIPPING.

Period.	Arrivals.		Departures.	
	No. of Vessels.	Tonnage.	No. of Vessels.	Tonnage.
1931-32	39	95,560	39	96,632
1932-33	38	95,834	38	97,011
1933-34	39	98,986	37	94,624
1934-35	58	108,306	47	108,909
1935-36	55	117,757	55	117,757
1936-37	100	125,840	104	122,505

The foregoing figures are exclusive of particulars of coastwise shipping. During 1936-37 eight vessels of 168 tons net were entered at Darwin as coastwise.

3. **Air Services.**—Darwin is the first port of arrival in Australia of aircraft from Europe, Singapore and Netherlands East Indies. Qantas Empire Airways Ltd. maintains a regular bi-weekly service in each direction over the Brisbane-Darwin-Singapore route. The MacRobertson-Miller Aviation Co. Ltd. also operates twice weekly between Perth and Daly Waters, linking up with the Qantas service at the latter point. Guinea Airways Ltd. has operated a service between Adelaide and Darwin since February, 1937.

§ 8. Internal Communication.

1. **Railways.**—Under the agreement made between the Commonwealth and the State of South Australia for the surrender and acceptance of the Northern Territory, which was ratified by the Northern Territory Acceptance Act 1910, the Commonwealth is to construct the Northern Territory portion of the transcontinental railway line (connecting Adelaide and Darwin, via Port Augusta).

The Northern line from Adelaide terminated at Oodnadatta, about 100 miles south of the southern boundary of the Territory, but has been extended to Alice Springs, an addition of 292 miles. The line from Darwin to Katherine River, about 200 miles, has been extended as far as Birdum, 316 miles from Darwin. The completion of the remainder of the gap would give access to broad belts of pastoral and mineral country towards the centre of Australia. The Commonwealth Government acquired on 1st January, 1911, the property in the line from Port Augusta to Oodnadatta (478 miles), and on 1st January, 1926, the control thereof was transferred to the Commonwealth Railways Commissioner. (See under Federal Railways.)

2. **Posts.**—Postal communication is maintained by vessels belonging to Burns, Philp and Co., which carry on a monthly service between the Territory and the Eastern States. In addition, the vessels belonging to the State Steamship Service of Western Australia give a service once every 60 days between Fremantle and Darwin. Mail is also carried between Brisbane and Darwin by the Qantas Empire Airways Ltd., and between Perth and Daly Waters by the MacRobertson-Miller Aviation Co. Ltd. Inland, the northern part of the Territory receives its mail via Darwin or by means of the aerial services, while the southern districts are served via Adelaide.

3. **Telegraphs.**—The trancontinental telegraph line, covering a length of 2,230 miles, was completed on the 22nd August, 1872, at a cost of nearly £500,000. The line runs in a northerly direction from Adelaide to Darwin, whence telegraphic communication is provided with Asia and Europe, via Banjoewangie (Java), Singapore and Madras. Between Darwin and Banjoewangie the submarine cable is duplicated.

High-power wireless stations have been constructed by the Federal Government at Wave Hill in the Territory, and at Camooweal, just over the eastern boundary, in Queensland.

§ 9. Finance.

In the Commonwealth finance statements separate accounts are given for Northern Territory administration. Revenue and expenditure for 1936-37 are given below:—

REVENUE AND EXPENDITURE.—NORTHERN TERRITORY, 1936-37.

REVENUE.	£	EXPENDITURE.	£
Taxation—		Northern Territory Adminis-	
Customs and excise ..	6,912	tration	201,650
Sales tax	470	Other departments	9,796
Land and Income tax ..	4,955	New Works	81,379
Probate and Stamp duties	782	Repairs, maintenance, &c. ..	15,798
Postal, Telegraph, and Tele-		Railways—	
phone	16,724	Working expenses	172,377
Railways—		New Works	2,462
North Australia	36,440	Interest	321,010
Central Australia	122,698	Sinking Fund	55,450
Territorial	27,003	Post, Telegraph and Telephone	21,170
Miscellaneous	27,294	Interest	24,945
Deficiency on year's trans-		Sinking Fund	4,426
actions	684,329	Unemployment relief	4,988
		Miscellaneous	12,156
Total	927,607	Total	927,607

AUSTRALIAN CAPITAL TERRITORY.

1. **Introductory.**—In Year Books Nos. 4 and 5, information was given in Section XXXI, in regard to the events leading to the selection of the Australian Capital Territory and the necessary legislation and the progress of operations in connexion with the establishment of the capital city. The physiography of the Territory was dealt with extensively and topographical and contour maps accompanied the letterpress, as well as reproductions of the premiated designs for the laying out of the city. Considerations of space, however, preclude the repetition of this information. On the 12th March, 1913, the official ceremony to mark the initiation of operations in connexion with the establishment of the Seat of Government was carried out. At this ceremony the selection of "Canberra" as the name of the capital city was announced. (A special article contributed by Dr. F. Watson, entitled "Canberra Past and Present", appeared on page 454 of Year Book No. 24.)

2. **Transfer of Parliament.**—On 9th May, 1927, Parliament House at Canberra was officially opened by His Royal Highness Albert, Duke of York, the occasion being the 26th anniversary of the opening of the first Parliament of the Commonwealth at Melbourne by His Royal Highness George, Duke of Cornwall and York—afterwards His Majesty King George V.—on the 9th May, 1901. (For particulars of the opening ceremony see Year Book No. 21, page 604.)

3. **Administration.**—In Year Book No. 18, a summary was given of the development of the administration prior to the taking over of the control of the Territory by the Federal Capital Commission, and in Year Book No. 22, a summary was given of the administrative activities of the Federal Capital Commission.

The administration of the Territory by the Federal Capital Commission was continued until the 30th April, 1930, when the Seat of Government (Administration) Act 1924–1929 was repealed, and the powers and functions of the Commission reverted to the Government. The new Administration provided for the general control of the Territory by the Minister for Home Affairs, with the assistance of the Department of Public Health in health matters, the Department of Works in the operation of the engineering services and in the construction of works, and the Attorney-General's Department in the administration of the Courts, Police and Probate, and the Registration of Titles.

An Advisory Council to advise the Minister on matters of local concern was established on the 1st May, 1930, by Ordinance under the Act, and a Civic Administrator was appointed under the Ordinance as Chairman of the Advisory Council and to carry on the general administration of the Territory under the Minister and subject to the specific services being undertaken by the other Commonwealth Departments mentioned.

The Advisory Council consisted of the Secretary, Department of Home Affairs; the Director-General of Health; the Secretary, Department of Works; the Civic Administrator; and three residents elected for two years under a system of adult franchise.

On the 12th April, 1932, the Departments of Home Affairs and Works were abolished and the Department of the Interior was established in lieu thereof. The office of Civic Administrator was abolished, and the constitution of the Advisory Council was altered to provide that the nominated members of the Council should consist of the Director-General of Health, and three officers of the Department of the Interior, namely, the Assistant Secretary (Works and Services); the Surveyor-General and Chief Property Officer; and the Assistant Secretary (Civic Administration).

Under the new administration, the general control of the Territory is exercised by the Minister for the Interior, but the specific services undertaken by the Department of Health and the Attorney-General's Department are being continued by those Departments.

4. **Progress of Work.**—The general progress of the work of construction up to the time the Territory was taken over by the Commission was outlined in Year Book No. 18. Later progress made under the Commission was described in Year Book No. 22.

Structures completed after the commencement of the Departmental form of administration comprised the Australian Institute of Anatomy with laboratories and accommodation for the museum of Australian fauna; laboratories of the divisions of Economic Entomology and Plant Industry of the Council for Scientific and Industrial Research; and a public swimming pool equipped with a modern filtration chlorination plant.

During the year 1937–38 additions were made to the No. 1 Secretariat building, a new school was erected at Uriarra, a radio transmitter building was constructed at the aerodrome, 83 residences were completed and contracts let for 50 additional residences. The following works were in progress: Additions to Ainslie school; erection of a new High school, a broadcasting station building, and a new fire station; the completion of the Australian War Memorial building; and a cadets' barracks at Royal Military College, Duntroon.

The following works were commenced or completed: Further straightening and re-alignment of Cotter road; extending Mount Franklin road to foot of southern slope, and road widened and provided with passing places; deviation of Brindabella road to eliminate Coree Creek crossings; bituminous surfacing of 3 miles of Cooma road and deviating same at Tuggeranong; replacing timber piers of Burbong bridge over Molonglo with concrete; constructing of streets in subdivisions at Deakin, Forrest and

Griffith; constructing of avenue roads; bituminous surfacing of 2 miles of footpaths and $3\frac{1}{2}$ miles of streets; improving street intersections; extending streets to North Ainslie settlement; kerbing and channelling to public buildings and various sections in the City; constructing north-western intercepting sewer; duplication of Western Creek Treatment Works; construction of trunk feed main from Mount Stromlo reservoir to City; provision of water supply, stormwater and sewerage reticulation in new subdivisions at Deakin, Forrest and Griffith, also at Red Hill, Government House, and Royal Military College, Duntroon; also provision of water supply to Naval Broadcasting Station and National Broadcasting Station at Gungahlin; installation of heating, Ainslie Public School, and Forestry School; also heating and hot water system, Cadet Block, Royal Military College, Duntroon; ventilation system, Hotel Kurrajong kitchen; provision of additional brickmaking machinery at brickworks; installation of new pumping plant, Western Creek Sewerage Area; extension of electric supply mains and street lighting to new City subdivisions and structures; installation of electric lighting in various buildings, Royal Military College, Duntroon; provision of high tension underground supply and sub-station and installation of electric light and power in hangar and provision of boundary lighting and identification beacon at Canberra aerodrome; erection of beacon at Mount Ainslie; extension of high tension supply and erection of sub-station Regional Broadcasting Station, also Navy Broadcasting Station, Gungahlin and Civil Aviation Broadcasting Station, Molonglo; undergrounding electric light mains, Forrest area.

The preparation and planting of the following areas was proceeded with:—Broughton Street, Barton; new subdivision, Kingston; Wakefield Gardens, North Ainslie; shelter belt, North Ainslie; Zoological Gardens Reserve; Printing Office, Kingston; Allunga Street, Braddon; Edinburgh Avenue, Acton; Cunningham Street, Kingston; Power House, Kingston. The planting of trees and block line hedges was continued throughout the year. Parks, gardens and recreation areas were satisfactorily maintained.

5. Forestry.—A considerable amount of reafforestation work has been undertaken, and plantations have been established at Uriarra, Mount Stromlo, Pierce's Creek and Kowan. Experimental plots have also been established in the Brindabella mountains and silvicultural work is being carried out at Black Mountain.

The total area of plantations to 30th June, 1937, was 11,418 acres. Forestry operations were begun on Mount Stromlo in 1915, and up to 1925 approximately 700 acres had been planted with pine and other trees. The plantings up to this time were chiefly on aesthetic lines, but since the initiation of the wider programme, arrangements have been made for pruning and thinning, and sawmill timber is now being obtained from the logs resulting from thinning operations.

In 1926 a comprehensive review was undertaken of the Territory's potentialities in regard to forest development. A system of forestry management was instituted in the existing forest areas, and a considerable amount of survey and assessment work has been completed. In the initial stages *pinus radiata* was most extensively planted, but, as a result of experimental work, plots of better quality pines on a longer rotation, such as *pinus ponderosa*, *Jeffreyi* and *laricio* were planted during recent years.

6. Lands.—(i) *In the Australian Capital Territory.* Reference has been made in previous issues of the Official Year Book to the general conditions of land tenure in the Australian Capital Territory and to the area of alienated and leased land.

As considerable portions of the Territory lands are not required in connexion with the establishment of the city, large areas have been leased under special improvement conditions in regard to the extermination of noxious weeds and the destruction of rabbits and other pests. The lands are classified into three grades of agricultural and three grades of grazing land. About 300,000 acres comprising 417 leases are at present held under lease for periods varying from quarterly tenure to 25 years. In addition leases have been granted over an area of approximately 12,000 acres in the Jervis Bay Territory.

Auction sales of city leaseholds are described in Year Book No. 22, p. 599.

Six leases for church purposes have been granted under the Church Lands Leases Ordinance 1924-1932, which requires the lessees to submit a definite building programme within a specified period, and a further eight leases have been granted for church and scholastic purposes under the Leases (Special Purposes) Ordinance 1925-1936.

The total number of leases granted under the City Area Leases Ordinances, not including surrendered leases, at the end of the financial year 1936-37 was 355, representing a capital value of £184,603. During the year 24 new leases were granted. The number of business and residential blocks surrendered to or determined by the Commonwealth to the end of the year was 249.

Under the terms of the City Area Leases Ordinances 1936 each block is leased for a period of 99 years at a rental of £5 per centum per annum of the unimproved capital value as assessed by the Commonwealth or bid at auction. In conformity with the general reduction of interest in consequence of the financial crisis rentals under this Ordinance have been reduced to 4 per centum of the unimproved capital value until 30th June, 1941.

(ii) *Land at Jervis Bay.* The Commonwealth has acquired from the State of New South Wales sovereign rights over the area comprising about 28 square miles of land and water at Jervis Bay for possible use as a port in connexion with the Australian Capital. The Royal Australian Naval College was established in this area on a site known as Captain's Point, but was removed in 1930 to Flinders Naval Base, Victoria. Nearly all of the remaining lands have been leased.

A scheme for the use by tourists of the residences and other buildings at Jervis Bay has been put into operation, and it has proved a considerable attraction, affording a seaside resort for residents of the Territory as well as for visitors from other places.

7. *Railways.*—Canberra is connected with the railway system of New South Wales by a line $4\frac{3}{4}$ miles long to Queanbeyan. This line was opened for goods traffic on the 25th May, 1914, and for passenger traffic on the 15th October, 1923. The railway terminus is situated in the area known as Kingston.

A direct passenger service is in operation connecting Canberra with Sydney and Melbourne, and trains leave both cities for Canberra daily. Improved facilities for goods traffic have also been provided.

A trial survey of a line between Canberra and Jervis Bay has been made, and plans prepared to enable an estimate of the cost of the line to be obtained, but no action in regard to this project is contemplated at present.

Under the provisions of the Seat of Government Surrender Act 1909 of New South Wales and the Seat of Government (Acceptance) Act 1909 of the Commonwealth an agreement exists between the Commonwealth and the State of New South Wales in relation to the construction of a railway from Canberra to Yass—a distance of approximately 43 miles, of which about 32 miles extend through New South Wales. The State is required to construct its portion of the line as soon as the Commonwealth builds a line to the boundary of the Territory.

8. *Population.*—The census return of population on the 30th June, 1933, was 8,766 in the Australian Capital Territory and 181 in Jervis Bay Territory, or a total of 8,947 persons. The estimated population at 30th June, 1937, was 10,276.

9. *Live Stock.*—The number of live stock depastured at 31st March, 1937, were :—Horses, 1,121, cattle, 9,856, and sheep, 244,378.

10. *Educational Facilities.*—Arrangements have been made with the New South Wales Education Department to continue for the time being the administration of education in the Territory, the expenditure involved being refunded annually to the State. There are thirteen schools in the Territory, including one at Jervis Bay. The largest of these is Telopea Park High School, which is situated on the south side of the

city area. It has accommodation for 750 scholars, and its curriculum provides a standard of education comparable in range of subjects with that provided at the best of the Government High Schools in New South Wales, thus permitting scholars to qualify for entrance to the Universities.

The School also provides for Junior Technical, Commercial and Trades School Branches, as well as Evening Commercial and Matriculation Classes.

The Trades School, which is excellently equipped, supplies the necessary training for apprentices and journeymen who are desirous of improving their respective trade qualifications. Provision at the School has also been made for Domestic Science and Dressmaking Sections.

A Vocational Training School has been established for the training of unemployed youths, and as an adjunct to the apprenticeship scheme which has been introduced. The classes at present operated are motor mechanics, plumbing and sheet metal work, carpentry and joinery, and bricklaying. The number of classes will increase as occasion demands.

An Infants' School with accommodation for 450 children has been erected on the north side of the city, where for the present scholars of the primary standard on the north side of the river are being catered for. The balance are small rural schools serving the needs of leaseholders settled in the Territory. A new High School and additions to the Ainslie School are in course of erection to meet the requirements of an increasing population.

Reference to the establishment of a University College at Canberra will be found in Chapter VI., "Education".

There are at present four private schools in the Territory. The Canberra Grammar School for Boys, Canberra Church of England Grammar School for Girls, St. Christopher's Convent School—all of which provide for primary and secondary education, and a new primary and sub-primary school—St. Patrick's—with accommodation for 90 scholars, which was recently erected by the Roman Catholic Church.

II. Finance.—(i) *Financial Year 1936-37.* Receipts and Expenditure for the financial year 1936-37 are given in the table hereunder:—

AUSTRALIAN CAPITAL TERRITORY.—RECEIPTS AND EXPENDITURE, 1936-37.

Receipts.		Expenditure.				
Items.	Amount.	Items.	Capital.	Maintenance.	Other.	Total.
	£		£	£	£	£
Rent and rates ..	147,820	Architectural services ..	189,133	36,759	..	225,892
Electricity ..	38,663	Engineering services ..	148,236	69,446	..	217,682
Motor registration and fees ..	12,327	Forestry ..	9,624	..	..	9,624
Hospital tax ..	7,765	Loans for housing ..	17,495	..	..	17,495
Hotels ..	24,362	Sundry works and services ..	9,937	39,498	..	49,435
Transport and City Bus Service ..	63,502	Education ..	..	..	29,069	29,069
Sales of goods, manufactured products, etc. ..	533,917	Hospital—Working expenses ..	..	..	12,500	12,500
Miscellaneous ..	36,380	Interest and Sinking Fund ..	..	..	288,765	288,765
		Administrative ..	..	..	52,110	52,110
		Hotels—Working expenses ..	..	..	25,299	25,299
		Transport and City Bus Service—Expenses ..	..	..	58,944	58,944
		Factory Stores, etc.—Working expenses ..	..	..	534,611	534,611
		Miscellaneous—Police, Fire Brigade, etc. ..	..	..	57,921	57,921
Total Receipts ..	864,736	Total Expenditure ..	374,425	145,703	1,059,019	1,579,147

(ii) *From Date of Selection of Site to 30th June, 1937.*—The total receipts and expenditure from the date of selection of site to the 30th June, 1937, were as follows:—
AUSTRALIAN CAPITAL TERRITORY.—RECEIPTS AND EXPENDITURE TO 30th JUNE, 1937.

Receipts.		Expenditure.	
Items.	Amount.	Items.	Amount.
	£		£
Commonwealth Treasury—		Lands	926,475
Parliamentary Appropriations—		Engineering works	3,798,871
Revenue	4,044,810	Architectural works	2,514,064
Loan	5,841,803	Other capital expenditure, sundry debtors, etc.	755,614
			7,995,024
		Seat of Government Establishment Account, being maintenance and administration less revenue; expenditure of a capital nature for which assets no longer exist: profit and loss accounts of trading activities, etc.	1,891,589*
Total Receipts	9,886,613	Net Expenditure	9,886,613

* Excluding accumulated interest, £2,651,204.

The above table was prepared by the Department of the Interior and does not include the cost of National Buildings—Parliament House, the Secretariats, etc., £1,717,063, and Loans for Housing, £100,366.

NORFOLK ISLAND.

1. *Area, Location, etc.*—Norfolk Island, discovered by Captain Cook in 1774, is situated in latitude 29° 3' 45" South, longitude 167° 58' 6" East. Its total area is 8,528 acres, the island being about 5 miles long and 3 miles wide. From Sydney it is distant 930 miles, and from Auckland, 630 miles. The coast line is 20 miles, and its form that of an irregular ellipse. Except on the south-west, inaccessible cliffs rise from the water's edge. The climate is equable, the temperature ranging between 49° and 85°, with a mean of 68°. The average annual rainfall is 53 inches. It has been said that the salubrious climate, coupled with the beauty of its land and sea scapes, should combine to render Norfolk Island "the Madeira of the Pacific." The island is visited annually by a number of tourists, and with improved shipping facilities this traffic is likely to increase. A tourist bureau has been established on the Island.

2. *Settlement.*—The first colonization, in 1788, was by Lieutenant King, who in H.M.S. *Supply* established a small penal station as a branch settlement of that at Port Jackson. The settlement was abandoned in 1813, and for 13 years thereafter its chief use was as a whaling station and place of call for British warships.

From 1826 to 1855 it was again made a penal station. In 1844 it was annexed to Van Diemen's Land (Tasmania).

The descendants of the *Bounty* mutineers, having become too numerous to subsist on Pitcairn Island, were removed thence to Norfolk Island in 1850. The new community numbered 94 males and 100 females—and were the descendants of British sailors and Tahitian women. Two of these were still alive at 30th June, 1938.

3. *Administration.*—In 1850 the island was created a distinct and separate settlement under the jurisdiction of New South Wales. Later in 1890 it was made a dependency under the Governor of that Colony, and finally by the passage of the Norfolk Island Act 1913 it was accepted by the Federal Parliament as a territory of the Commonwealth. From July, 1914, until 1st January, 1920, Norfolk Island was administered by the Department of Home and Territories, but it is now administered by the Territories

Branch of the Prime Minister's Department through an Administrator. An amending measure, the Norfolk Island Act 1935 provides for the establishment of an Advisory Council of eight elected members to advise the Administrator on any matter affecting the Island.

4. **Population.**—The population at the 30th June, 1937, was 1,085, consisting of 575 males and 510 females. In the year 1936-37, 19 births, 10 deaths, and 7 marriages were recorded. The average age of the persons who died was 44 years. Departures from the Island exceeded arrivals by 57, the respective figures being: departures 350, arrivals 293.

5. **Live Stock.**—The latest returns of live stock show that in October, 1934, there were on the island 1,636 cattle, 718 horses, 292 sheep and 158 pigs. In addition, there were 5,581 head of poultry.

6. **Production, Trade, etc.**—The soil throughout is good and is specially suitable for the cultivation of bananas, citrus and other fruits. The Canadian Wonder bean seed is one of the staple crops of the Island. Since the promulgation of the Ordinance regulating the export of seed the area planted with bean seed has increased; in 1936-37 approximately 250 acres were sown, but as in the previous two years the crop was damaged by rain and wind, and expectations of a record crop were not realized. The exports amounted to 1,453 bushels compared with 804 bushels in 1935-36.

Apart from the bean, agriculture generally has been depressed, but the prospects are now brighter. A modern pulping factory has been erected on the Island and 3,386 gallons of passion fruit pulp were exported during 1936-37. The pulping of cherry guavas for jelly was also experimented with and 10,670 lb. were shipped to Sydney.

Large numbers of whales pass the island throughout the season, but whaling has now practically ceased. The preserved fish industry which was established some years ago has been abandoned, but a factory for the purpose of freezing fillets of fish for export to Sydney commenced operations on 1st April, 1937. Such fish as trevalla, kingfish, schnapper and many others abound in the waters around the Island.

On the 30th June, 1937, the total area of land held under freehold and Crown leasehold amounted to 6,820 acres, consisting of 4,522 acres freehold and 2,298 leasehold.

Imports and exports for the last five years are given hereunder; the values are expressed in Australian currency:—

NORFOLK ISLAND.—IMPORTS AND EXPORTS.

Country.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
IMPORTS.					
From—	£	£	£	£	£
Australia	25,392	27,760	26,260	28,657	33,825
New Zealand	5,457	716	..	..	2
Pacific Islands ..	72	184	258	140	210
Total	30,921	28,660	26,518	28,797	34,037

EXPORTS.					
To—	£	£	£	£	£
Australia	18,795	15,714	8,170	8,283	11,611
New Zealand	2,943	105	..	921	..
Pacific Islands ..	54	74	148	203	268
Total	21,792	15,893	8,318	9,407	11,879

Duties of Customs are levied on the following goods imported into Norfolk Island for home consumption :—

IMPORT DUTIES SCHEDULE.

Article.	Unit.	Rate of Duty.	Article.	Unit.	Rate of Duty.
		<i>s. d.</i>			<i>s. d.</i>
Spirits	pr. gal.	30 0	Chicory	lb.	0 3
Ale, beer, porter and cider	gal.	2 6	Petroleum, etc. ..	gal.	0 3
Wine, still—			Kerosene, etc. ..	"	0 3
Australian ..	"	5 0	Residual oil, etc. ..	"	0 3
Other	"	10 0	Oil, n.e.i.	"	0 3
Wine, sparkling—			Lubricating oils ..	"	0 3
Australian ..	"	15 0	Sugar	cwt.	3 0
Other	"	25 0	Molasses, etc. ..	"	2 0
Tobacco, manufactured			Biscuits	lb.	0 1
or unmanufactured—			Candles	"	0 1
Australian leaf ..	lb.	2 0	Confectionery ..	"	0 3
Other leaf	"	4 0	Dried fruits—		
Cigars and cigarettes ..	"	6 0	Australian	"	0 1
Tea	"	0 3	Other	"	0 3
Coffee	"	0 3	Jams, jellies and pre- serves	"	0 1

No duties are chargeable on goods imported into Australia from Norfolk Island if the goods—(a) are the produce or manufacture of Norfolk Island; and (b) are shipped direct to Australia; and (c) are not goods which if manufactured or produced in Australia would be subject to any duty of excise.

7. Communication.—The “all-red” cable from Great Britain via Vancouver, Fanning Island and Fiji, bifurcates at Norfolk Island, one line connecting with New Zealand, the other with Brisbane.

An alternate 12 and 30 day's shipping service to the Territory is maintained by the vessels of Burns, Philp & Co. Ltd., Sydney, under the terms of the contract with the Commonwealth Government for the maintenance of shipping services to the Pacific Islands.

On one voyage the SS. *Morinda* leaves Sydney, calls at Lord Howe Island and Norfolk Island and then proceeds to the New Hebrides, returning to Sydney by the same route. The same vessel then makes a short trip to Norfolk Island and returns to Sydney calling at Lord Howe Island on both the outward and inward voyages.

The journey from Sydney to Norfolk Island occupies four days.

8. Social Condition.—Education is free and compulsory up to the age of fifteen years. The school conforms to the Australian standard of public education, ranging from kindergarten to the intermediate certificate, with a two years' superprimary course of instruction in cultural subjects and in agriculture, woodwork, metalwork, etc. The headmaster and two assistant teachers are lent by the New South Wales Education Department, but they are paid by the Norfolk Island Administration. The number of scholars enrolled at 30th June, 1937, was 139. There is also a small privately-conducted school on the Island.

The Court of Norfolk Island presided over by a Chief Magistrate is a court of record with dual jurisdiction. Sitting in its Limited Jurisdiction the Court has power to hear and determine actions of claims not exceeding £30 and to punish summarily all

crimes and offences involving a pecuniary penalty or a sentence of imprisonment not exceeding six months. In its Full Jurisdiction the Court can hear and determine all actions, punish all crimes and offences, grant probate and letters of administration, hear and determine appeals from any conviction of the Court sitting in its limited jurisdiction, and has authority in all other matters. An appeal lies to the High Court of Australia from any judgment, order, decree or sentence of the Court sitting in its full jurisdiction.

9. **Finances.**—The whole of the Territorial revenue together with an annual grant from the Commonwealth Government in aid of the administrative expenses is paid to the credit of the Norfolk Island Trust Fund Account, and all administrative and developmental expenses are paid from that account. The operations for the year 1936-37 were as follows:—

NORFOLK ISLAND TRUST FUND ACCOUNT, 1936-1937.

Items.			Receipts.	Items.			Expenditure
			£				£
Balance carried forward	..		9,093	Salaries	..	..	5,220
Commonwealth Grant—				Purchase of liquor	..	..	2,625
Ordinary	..	..	4,000	Flood damage relief	..	..	1,106
Special	..	..	325	Repairs and maintenance	..	..	1,103
Customs duties	..	..	3,243	Miscellaneous	..	..	4,446
Sale of liquor	..	..	3,454	Balance	..	..	8,751
Miscellaneous	..	..	3,136				
Total	..	..	23,251	Total	..	..	23,251

PAPUA.

§ 1. General Description.

1. **Early Administration.**—Particulars of the early administration of Papua were given in Official Year Book No. 19, p. 576.

2. **Administration by Commonwealth of Australia.** The Territory was placed under the authority of the Commonwealth on 1st September, 1906, by proclamation issued in pursuance of Letters Patent of the 18th March, 1902, and was accepted by the Commonwealth by the Papua Act 1905, which came into force by virtue of the proclamation aforesaid. The transfer was made under the authority of section 122 of the Constitution. The Territory is now under the administration of the Commonwealth, but not included within it, and is divided into magisterial districts.

3. **Area, etc.**—Papua lies wholly within the tropics. The northernmost point touches 5° S. latitude: its southernmost portion, comprising Sudest and Rossel Islands, lies between 11° S. and 12° S. latitude. It is separated from Australia by Torres Strait. The length of Papua from east to west is upwards of 800 miles: towards either end the breadth from north to south is about 200 miles, but about the centre it is considerably narrower. The Territory comprises also the islands of the Trobriand, Woodlark, D'Entrecasteaux and Louisiade groups. The length of coast-line is estimated at 3,694 miles—1,728 on the mainland, and 1,936 on the islands. The total area is about 60,540 square miles, of which 87,786 are on the mainland, and 2,754 on the islands. A reference to the physical characteristics of the Territory appears in previous issues of the Official Year Book (see No. 18, p. 633).

§ 2. Population.

The white population of Papua at the census of the 30th June, 1937, was 1,323, made up of 834 males and 489 females. The following table gives the white population in each of the last five years :—

WHITE POPULATION OF PAPUA.

YEAR ENDED 30TH JUNE.

1933.	1934.	1935.	1936.	1937.
1,148	1,107	1,229	1,203	1,323

It is not possible to give exact data regarding the number of natives, because a large area of the interior is not yet under Government control. The official estimate is 275,000. Such censuses of the native population as have been taken during recent years point to a slight increase. The coloured population, other than Papuans, on 30th June, 1933, was 786, and included many mission teachers from Samoa, Fiji and other Pacific Islands. On the same date, half-castes, with one of the parents a European, were 227. An Immigration Restriction Ordinance prohibits the immigration of persons who fail to pass the dictation test, or who are of bad character, or likely to become a charge upon the public. Exemptions may, however, be granted by the Lieutenant-Governor to persons of special skill required for employment as overseers or foremen.

§ 3. Native Labour, Taxation, Health, etc.

1. **Native Labour.**—Information regarding the conditions connected with the employment of native labour will be found in Official Year Book No. 22, p. 607.

The number of natives who served under contracts of service for various periods during 1936–37 was 13,079, and the approximate number of non-indentured labourers was 2,863; the latter is of course only estimated, and cannot be taken as quite reliable.

2. **Native Taxes.**—Under the Native Taxes Ordinance, 1917–1936, a tax not exceeding £1 per annum may be imposed on natives, excepting native constables, mission teachers, natives unfit for work, and those who have four living children. The proceeds of the tax must be expended on native education, or devoted to purposes directly benefiting the natives, as may be prescribed.

The taxes collected in 1936–37 amounted to £16,549, of which £6,162 was transferred to the Native Education Fund, and £8,489 to the Native Benefits Fund. The Native Education Fund during the year 1936–37 disbursed to primary and technical education £4,616, and to agricultural education £1,329, leaving a credit balance of £17,301. From the Benefits Fund the expenditure included :—Anthropology, £875; health, £5,996; village improvements, £161; family bonus, £1,457; and games in villages, £37.

3. **Care of Half-caste Children.**—An Ordinance was passed in 1922 to provide for the care and maintenance of neglected half-caste children. The Ordinance provides that a sum of £26 per annum shall be paid to the Commissioner for Native Affairs by the adjudged father of the child until the child, if a boy, shall reach the age of 16 years, or, if a girl, 18 years.

4. **Health.**—The two principal native hospitals are in Port Moresby and Samarai; but minor hospitals are attached to the out-stations. Hospitals are also conducted by the various mission societies and plantation companies. The mission societies employ two doctors and a number of trained nurses. Several European medical assistants are employed by the Government. In recent years parties of natives have received a six months course of instruction in first aid and in elementary physics, chemistry,

anatomy, physiology and pathology at the School of Public Health and Tropical Medicine, University of Sydney. On their return to the Territory the natives are employed as travelling native medical assistants. The chief complaints treated are yaws, ulcers, lung affections, hookworm, venereal and skin diseases. The death rate amongst native labourers was 1.09 per cent. in 1936-1937.

§ 4. Land Tenure.

1. *Method of Obtaining Land.*—The broad principles upon which the land laws of Papua are based are:—(a) no land can be alienated in fee simple; (b) the rental of the land leased is assessed on the unimproved value of the land, and is subject to re-appraisal at fixed periods. The terms upon which land may be leased are very liberal. Leaseholds of the best class of agricultural land may be obtained for 99 years. No rent is payable during the first ten years of the lease on areas less than 1,000 acres. During the following ten years the rent is charged at the rate of 5 per cent. on the unimproved value of the land. The unimproved value of the land is appraised every twenty years and the rent determined accordingly. If on any appraisal the rent is raised by more than one-third the lessee may disclaim the lease and shall be entitled to receive compensation for his improvements. The unimproved value of agricultural land has been fixed at 5s. per acre. Rent is immediately payable on areas exceeding 1,000 acres, and survey fees on areas exceeding 100 acres.

2. *Holdings.*—On the 30th June, 1937, the lands of the Territory were held as follows:—

PAPUA.—HOLDINGS, 1937.

Description.				Area. "
				Acres.
Land held by the natives	..	..	..	56,828,751
Crown land	..	..	..	845,967
Freehold land	..	..	..	24,018
Leasehold land	..	..	..	246,864
Area of Territory	..	..	..	57,945,600

Private sales of land in the Territory have now ceased. The Government buys from the natives, and then leases to planters, who are forbidden to have direct dealings in land with Papuans.

Of the total area of 246,864 acres shown above, agricultural leases accounted for 227,503, pastoral leases for 17,821, special leases for 633 and mission leases for 617.

The total area of leases granted during the year was 25,724 acres, and Crown rents on leaseholds for the year 1936-37 amounted to £5,359.

§ 5. Production.

1. *General.*—The products of the Territory are obtained from its agricultural, timber, fishing, mining and manufacturing industries. Gold is the principal mineral mined, and copra occupies the foremost position amongst plantation products followed by rubber. Portions of the Territory appear well suited for cotton cultivation, and there is a possibility of obtaining petroleum in marketable quantities. Bounties are paid by the Commonwealth Government on cocoa beans and shells, hemp and coir, sago, vanilla beans, bamboos and rattans, spices and kapok produced in the Territory and imported direct to Australia for home consumption.

2. *Agriculture.*—(i) *Soil and Rainfall.* Rich soils at varying elevations and heavy and evenly distributed rainfall favour the cultivation of a variety of tropical products including sugar cane, coconuts, sago palm, bread fruit, dyewoods, spices, ginger, nutmegs, bananas and other fruits. There are large areas of rich alluvial and volcanic soils along

the coast, and fertile land is found at elevations up to 6,000 feet. Heavy rainfalls occur, except over a belt of country which runs back from the coast to the hills, and which has its dry season from May to November. This "dry" area is admirably suited for the production of tobacco, fibres, cotton, etc. There are 20 meteorological stations throughout the Territory, and an economic museum and agricultural library have been established.

(ii) *Plantations.* Agricultural settlement has been mostly in the Central and Eastern Divisions with coconuts and rubber as the principal crops. The natives are compelled by an ordinance to plant coconuts for food supply. In addition to the coconuts in these plantations, many more are planted over small and widely scattered areas by the older natives in accordance with custom. The Native Plantations Ordinance provides for the establishment of plantations in which half of the proceeds is paid to the natives entitled thereto, and the remaining half paid into the Native Education Fund. The following table shows the areas under the different crops during the past five seasons:—

AREA UNDER CULTIVATION.

Crop.	1932.	1933.	1934.	1935.	1936.
	Acres.	Acres.	Acres.	Acres.	Acres.
Coconuts	49,305	47,921	49,033	47,642	48,188
Rubber	8,796	8,993	8,933	9,591	10,270
Sisal hemp	150	150	362	150	150
Kapok	121	79	86	128	168
Coffee	375	391	398	388	368
Rice	17	39	21	27	..
Sugar	46	53	54	50	..
Mauritius beans	100	70	80	..	..
Other	843	611	479	652	801
Total	59,753	58,307	59,446	58,628	59,945

Planters experienced a profitable year during 1936-37. The average price of copra rose from £15 8s. 6d. in 1935-36 to £21 16s. 1d. in 1936-37, while the price of rubber advanced from 8½d. to 11¼d. per lb. during the same period.

(iii) *Government Plantations.* There are two Government plantations, the Orangerie Bay coconut plantation and the Kemp Welch rubber plantation.

3. *Forestry.*—According to the Commonwealth Inspector-General of Forests the principal softwood timber is known as "ilimo," while among satisfactory timbers of the lowlands are "nara," "medobi," and "melila." There are a large number of woods, varying from the softest to the hardest, including beautiful cabinet woods, but research is necessary to determine their usefulness. The development of a coniferous belt at the higher altitudes offers great possibilities. It is believed that teak and sandalwood are well suited for cultivation.

4. *Live Stock.*—At 31st December, 1936, the live stock in the Territory consisted of 490 horses, 5,855 head of cattle, 95 mules, 13 donkeys, 1,912 goats, 571 pigs, 32 sheep and 7,337 fowls. The introduction of rabbits, foxes, hares and monkeys is prohibited.

5. *Fisheries.*—Pearl-shell fishing occupies an important place in the industries of Papua. Considerable numbers of luggers are licensed, but the returns are mostly credited to Queensland, whose boundary approaches to within a few miles of the Papuan coast. The species of tortoise which supplies the commercial tortoise-shell is also a native of Papua. Bêche-de-mer and trochus are found along the shores and reefs, and form valuable articles of export.

6. *Mining.*—(i) *Variety of Minerals.* Minerals have been found over a wide range of country. Those discovered so far are—gold, copper, tin, lead, zinc, cinnabar, iron, osmiridium, gypsum, manganese, sulphur, graphite, chromite, lignite, platinum and petroleum.

The existence of petroleum has been traced at scattered intervals over a large area. Six companies hold permits under the provisions of the Petroleum (Mining) Ordinance 1934-1936 and oil prospecting is being carried on extensively in the Western, Delta, Gulf and Central Divisions.

Of precious stones, only the topaz and beryl have been obtained. Large beds of apparently good coal also exist.

(ii) *Gold.* Gold was discovered in 1888 and the search gradually spread over every division, finds being reported wherever the explorers went. Gold-mining was carried on sporadically throughout the Territory during 1936-37, but the only important developments were on the Island of Misima in the Louisiade gold field. The estimated quantity in fine ounces and the value of the gold yield for the last five years are given below :—

PAPUA.—GOLD YIELD.(a)

1932-33.		1933-34.		1934-35.		1935-36.		1936-37.	
Quantity. (b)	Value.	Quantity. (b)	Value.	Quantity. (b)	Value.	Quantity. (b)	Value.	Quantity. (b)	Value.
fine ozs.	£	fine ozs.	£	fine ozs.	£	fine ozs.	£	fine ozs.	£
9,387	70,337	10,814	87,893	16,136	140,692	19,254	167,173	21,605	187,781

(a) Valued at average price realized for fine gold in Australia.

(b) Estimated.

Most of the rivers, with the exception of those flowing into the Gulf of Papua, have been declared open to gold-dredging, and good yields have been obtained. The total value of gold won to 30th June, 1937, was £2,293,934.

(iii) *Copper.* Owing to unprofitable prices the copper mines in Papua have suspended operations. The total value of the copper exported to the 30th June, 1937, was £366,827.

(iv) *Other Minerals.* Some good samples of galena (sulphide of lead) have been obtained, while cinnabar (sulphur of mercury), graphite (or plumbago), zinc-blende, native sulphur, and other minerals are known to exist. In 1924 a deposit of lignite was discovered on Smoky Creek, a tributary of the Era River.

A mineral laboratory and museum have been fitted up, and are available to prospectors and others interested.

7. *Water Power.*—Most of the rivers in Papua carry a large volume of water from a great height over a relatively short distance, thereby offering opportunities for the installation of hydro-electric power plants. It is estimated that there are at least 10,000,000 h.p. available for this purpose.

§ 6. Trade.

1. *Customs Tariff.*—In the Schedule to the Customs Tariff of Papua 136 items are mentioned of which approximately one-third are on the free list consisting of a number of foodstuffs and certain manufactures for use in the development of the Territory or its industries. Where duties are imposed they are generally on a 10 per cent. *ad valorem* basis, with the exception of ale, spirits, beverages and tobacco on which high revenue rates are imposed. Preference is given to Australian wines. On the 16th July, 1931, a primage duty of 4 per cent. *ad valorem* was imposed on all goods whether dutiable or not in addition to the ordinary customs dues: the rate was subsequently reduced to 2½ per cent. and the duty ceased to operate on 1st July, 1937. The value of imports into Papua during 1936-37 was £152,056 and the duty collected, £57,257, including primage, £8,022.

The sum of £186 was received in export duties which are levied on pearl-shell and copra, in the latter case only on the excess above £20 per ton of a certain declared value deemed to be the London market price.

Provision is made in the Australian Customs Tariff (Papua and New Guinea Preference) 1936 for the free entry into Australia of certain goods produced and imported direct from Papua (see Chapter XVI., § 2 par. 4 (iv)), and a proclamation of 25th September, 1935, exempted from primage duty goods the produce or manufacture of the Territory.

2. Imports and Exports.—Comparative tables of imports and exports during the past five years are given hereunder. The values of exports are expressed in Australian currency but it is not possible to accurately determine the meaning of the £ in the table of imports.

PAPUA.—IMPORTS AND EXPORTS.

Particulars.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
IMPORTS.					
	£	£	£	£	£
Ale, spirits and beverages ..	7,816	7,188	8,732	9,170	11,362
Tobacco and manufactures ..	22,254	17,948	23,297	21,075	25,637
Agricultural products and groceries ..	64,186	63,451	74,945	85,205	114,621
Textiles, felts, furs, attire, etc. ..	25,964	24,670	30,127	30,985	40,987
Metals and machinery ..	24,377	35,142	49,551	49,389	98,875
Oils, paints and varnishes ..	12,806	15,072	14,179	17,327	27,519
Earthenware, cement, glass, etc. ..	1,856	1,968	2,730	2,687	5,078
Drugs and chemicals ..	6,586	5,912	8,143	7,444	9,596
Wood, wicker and cane ..	2,058	1,995	3,385	4,729	7,620
Jewellery and fancy goods ..	4,447	4,216	4,699	7,722	9,171
Leather and rubber ..	3,237	2,873	5,182	5,204	6,288
Paper and stationery ..	3,398	3,779	4,264	5,105	6,317
Miscellaneous ..	19,252	19,401	23,510	49,748	58,633
Government stores ..	19,779	16,990	16,555	22,025	30,352
Total ..	218,016	220,605	269,299	317,815	452,056
EXPORTS.					
	£	£	£	£	£
Bêche-de-mer ..	6,482	1,643	4,455	1,802	3,939
Coffee beans ..	2,404	4,993	7,083	5,217	7,536
Copra ..	89,512	42,990	57,597	100,681	191,808
Coconut, desiccated ..	49,514	48,000	37,895	42,467	47,137
Gold ..	45,383	45,933	68,922	81,034	87,003
Pearls ..	1,480	2,505	5,742	2,395	1,966
Rubber ..	56,929	61,324	79,031	89,467	124,174
Trochus shell ..	9,619	16,922	11,750	13,609	12,581
Other ..	14,543	24,825	22,268	18,485	47,857
Total ..	275,866	249,135	294,743	355,157	524,001

Apart from the improvement in the financial position of the planters the rise in imports was occasioned by the introduction of capital expenditure for the gold field at Misima and for the oil prospecting companies in the west. Enhanced prices for copra and rubber were largely responsible for the increase in exports during 1936-37.

The trade of the Territory reached its maximum in 1925-26 when imports were valued at £170,774 and exports at £640,373. Prices for both copra and rubber were high about that time and the copper mines were producing freely.

3. **Direction of Trade.**—Particulars of the countries of origin of the imports into Papua and the destination of the goods shipped therefrom are available for the past three years :—

PAPUA.—DIRECTION OF TRADE.

Country.	Imports.			Exports.		
	1934-35.	1935-36.	1936-37.	1934-35.	1935-36.	1936-37.
	£	£	£	£	£	£
Australia ..	134,450	145,534	219,007	226,662	254,132	332,165
United Kingdom ..	40,156	53,670	72,580	7,456	45,329	55,338
Other British ..	13,510	13,317	20,717	10,448	6,025	6,245
Europe ..	7,792	6,985	18,761	34,998	38,291	97,392
Japan ..	10,185	9,104	12,888	10,576	10,558	8,381
Asia, excluding Japan	17,759	22,844	30,549	3,487	675	3,080
Dutch East Indies and Philippine Islands ..	6,803	11,320	20,657	..	147	..
United States of America ..	38,644	54,406	56,470	1,116	..	21,400
America, Other ..	..	635	427	..	..	..
Total ..	269,299	317,815	452,056	294,743	355,157	524,001

§ 7. Finance and Shipping.

1. **Finance.**—The revenue and expenditure for the last five years were as follows :—

PAPUA.—REVENUE AND EXPENDITURE.

Particulars.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
	£	£	£	£	£
Revenue—					
Customs ..	37,953	35,551	43,428	46,132	57,443
Commonwealth Grant ..	34,000	40,000	42,500	42,500	42,500
Lands ..	5,699	5,376	5,319	5,177	6,531
Fees, fines, etc. ..	4,657	4,873	6,199	5,600	6,148
Other ..	45,634	35,348	(a) 55,165	(a) 66,279	(a) 59,169
Total ..	127,043	121,148	152,611	165,688	171,791
Expenditure—					
Medical ..	14,166	13,759	13,398	16,203	16,718
Ordinary Votes ..	96,065	90,610	(b) 120,723	(b) 129,282	(b) 127,926
Public Works ..	15,370	14,335	15,504	17,597	23,593
Native Affairs ..	2,820	2,784	2,848	2,739	2,773
Total ..	128,421	121,488	152,473	165,821	170,920

(a) Includes Commonwealth grant to rubber growers £19,023 in 1934-35, £19,747 in 1935-36 and £6,871 in 1936-37, and Commonwealth grant for mining development, £5,000 in 1935-36.
 (b) Includes expenditure of Commonwealth special grants.

2. **Shipping.**—The following table shows the number and tonnage of overseas vessels entered and cleared at ports during the years 1931-32 to 1936-37. All the vessels recorded in 1936-37 except 33 were of British nationality

PAPUA.—OVERSEA SHIPPING.

Year.	Vessels.	Tonnage.
1931-32	185	333,304
1932-33	170	398,451
1933-34	168	373,895
1934-35	177	341,537
1935-36	194	371,980
1936-37	181	356,476

Throughout, the figures are exclusive of ships of war and Government vessels.

§ 8. Progress of Papua.

As already stated in § 1, *supra* the Territory was placed under the Commonwealth control on 1st September, 1906. The following table indicates the progress that has been made since that date :—

PAPUA.—STATISTICAL SUMMARY.

Items.	Year ended 30th June—		
	1907.	1936.	1937.
White population	690	1,203	1,323
Native labourers employed	2,000	14,268	15,942
Territorial revenue	£21,813	£98,442	£122,420
" expenditure	£45,335	£141,074	£164,048
Value of imports	£87,776	£317,815	£452,056
" exports	£63,756	£355,157	£524,001
Area of plantations	(a) 1,467	(a) 58,628	(a) 59,945
Meteorological stations established	3	20	20
Gold yield fine ounces	12,439	19,254	21,605

(a) 31st December, previous year.

MANDATED TERRITORY OF NEW GUINEA.

§ 1. General Description.

The land area of the Territory of New Guinea is about 93,000 square miles and the area including the sea within the lines drawn through its extreme outer points is more than 1,000,000 square miles. The coast of the Territory not having been completely surveyed, the areas of the various islands are known only approximately.

The approximate areas of the principal islands together with the small islands adjacent thereto are as follows :—

AREA OF TERRITORY OF NEW GUINEA.

Particulars.	Approximate Area.
North East New Guinea (also called "The Mainland")	Square Miles.
Bismarck Archipelago—	69,700
New Britain	14,600
New Ireland	3,340
Lavongai	460
Admiralty Islands	800
Solomon Islands—	19,200
Bougainville	3,880
Buka	220
	4,100
Total	93,000

Information regarding physiography and climate will be found in Official Year Book, No. 22, p. 613, and in the Official Handbook of the Territory.

§ 2. Government.

1. **The Military Occupation.**—On the 17th September, 1914, the Acting Governor of German New Guinea signed terms of capitulation with the officer commanding a Naval and Military Expedition sent from Australia, and thereafter the Territory was under military administration until the establishment of Civil Government in May, 1921.

2. **Mandate.**—In 1919 it was decided by the Principal Allied and Associated Powers that the Territory of New Guinea, which Germany gave up as one of the terms of peace, should be entrusted under Mandate from the League of Nations to the Government of the Commonwealth. The issuing of the Mandate was, however, delayed, and it was not until 17th December, 1920, that its terms were settled; and the Mandate itself did not reach Australia until April, 1921.

The terms of the Mandate are given hereunder :—

THE COUNCIL OF THE LEAGUE OF NATIONS :—

Whereas by Article 119 of the Treaty of Peace with Germany signed at Versailles on 28th June, 1919, Germany renounced in favour of the Principal Allied and Associated Powers all her rights over her oversea possessions, including therein German New Guinea and the groups of islands in the Pacific Ocean lying south of the Equator other than German Samoa and Nauru; and

Whereas the Principal Allied and Associated Powers agreed that in accordance with Article 22, Part I. (Covenant of the League of Nations), of the said Treaty, a Mandate should be conferred upon His Britannic Majesty to be exercised on his behalf by the Government of the Commonwealth of Australia to administer New Guinea and the said islands, and have proposed that the Mandate should be formulated in the following terms; and

Whereas His Britannic Majesty, for and on behalf of the Government of the Commonwealth of Australia, has agreed to accept the Mandate in respect of the said territory and has undertaken to exercise it on behalf of the League of Nations in accordance with the following provisions; and

Whereas, by the aforementioned Article 22, paragraph 8, it is provided that the degree of authority, control or administration to be exercised by the Mandatory not having been previously agreed upon by the members of the League, shall be explicitly defined by the Council of the League of Nations;

Confirming the said Mandate, defines its terms as follows :—

ARTICLE I.

The territory over which a Mandate is conferred upon His Britannic Majesty for and on behalf of the Government of the Commonwealth of Australia (hereinafter called the Mandatory) comprises the former German Colony of New Guinea and the former German islands situated in the Pacific Ocean and lying south of the Equator, other than the islands of the Samoan group and the island of Nauru.

ARTICLE 2.

The Mandatory shall have full power of administration and legislation over the territory subject to the present Mandate as an integral portion of the Commonwealth of Australia, and may apply the laws of the Commonwealth of Australia to the territory, subject to such local modifications as circumstances may require.

The Mandatory shall promote to the utmost the material and moral well-being and the social progress of the inhabitants of the territory subject to the present Mandate.

ARTICLE 3.

The Mandatory shall see that the slave trade is prohibited, and that no forced labour is permitted, except for essential public works and services, and then only for adequate remuneration.

The Mandatory shall also see that the traffic in arms and ammunition is controlled in accordance with principles analogous to those laid down in the Convention relating to the control of the arms traffic, signed on 10th September, 1919, or in any convention amending the same.

The supply of intoxicating spirits and beverages to the natives shall be prohibited.

ARTICLE 4.

The military training of the natives, otherwise than for purposes of internal police and the local defence of the territory, shall be prohibited. Furthermore, no military or naval bases shall be established or fortifications erected in the territory.

ARTICLE 5.

Subject to the provisions of any local law for the maintenance of public order and public morals, the Mandatory shall ensure in the territory freedom of conscience and the free exercise of all forms of worship, and shall allow all missionaries, nationals of any State Member of the League of Nations, to enter into, travel and reside in the territory for the purpose of prosecuting their calling.

ARTICLE 6.

The Mandatory shall make to the Council of the League of Nations an annual report to the satisfaction of the Council, containing full information with regard to the territory, and indicating the measures taken to carry out the obligations assumed under Articles 2, 3, 4, and 5.

ARTICLE 7.

The consent of the Council of the League of Nations is required for any modification of the terms of the present Mandate.

The Mandatory agrees that if any dispute whatever should arise between the Mandatory and another Member of the League of Nations relating to the interpretation or the application of the provisions of the Mandate, such dispute, if it cannot be settled by negotiation, shall be submitted to the Permanent Court of International Justice provided for by Article 14 of the Convention of the League of Nations.

The present Declaration shall be deposited in the archives of the League of Nations. Certified copies shall be forwarded by the Secretary-General of the League of Nations to all Powers Signatories of the Treaty of Peace with Germany.

Made at Geneva the 17th day of December, 1920.

3. **New Guinea Act and Statute Law.**—In anticipation of the issuing of the Mandate the Commonwealth Parliament in September, 1920, passed the New Guinea Act 1920, by which the Governor-General was authorized to accept the Mandate when issued. The Territory was, by the Act, declared to be a Territory under the authority of the Commonwealth, with the name of the Territory of New Guinea.

The Act provided for an Administrator, while power to legislate for the Territory was to be exercised by the Governor-General, and provision was made for the observance of safeguards in the interests of the natives as set out in the Mandate.

In 1932 the Act was amended to provide for the establishment of a Legislative Council and an Executive Council for the Territory, the Executive Council to consist of nine members appointed by the Governor-General of whom one shall not be an officer of the Territory. The Legislative Council is empowered to make Ordinances for the peace, order and good government of the Territory. Such Ordinances are subject to disallowance by the Governor-General who, however, is not now empowered to make Ordinances for the Territory. The amending Act was proclaimed to commence on 2nd May, 1933, and the Act is now entitled the New Guinea Act 1920-1935. The Acts of the Commonwealth Parliament do not (unless expressly so stated) extend to the Territory, but the Laws Repeal and Adopting Ordinance 1921-1937 provides that certain Acts and Ordinances shall be applied thereto.

4. **Legislative Council.**—The Legislative Council consists of the Administrator, the eight official members of the Executive Council and seven non-official members, the latter nominated by the Administrator and appointed by the Governor-General.

5. **Expropriation.**—The Treaty of Peace provided that German nationals resident in her former colonies might be repatriated, and that the property rights and interests of German nationals in former colonies might be retained and liquidated by the Allies, the proceeds being credited to Germany in part payment of the reparation payable by her under the Treaty. In pursuance of these powers, in September, 1920, the property of the principal German companies in the Territory, and in March, 1921, that of a large number of German planters, was vested in the Public Trustee. In 1926 and 1927 these plantations were transferred to private owners.

6. **Departments and Districts.**—The Administration is organized in eight Departments—Government Secretary; Treasury; District Services and Native Affairs; Public Health; Customs; Lands, Surveys, Mines and Forests; Agriculture; and Public Works.

For administrative purposes the Territory is divided into the seven following districts:—New Britain, comprising New Britain and adjacent islands; Morobe; Madang; Sepik (on the mainland); New Ireland, comprising New Ireland, Lavongai and adjacent islands; Manus, comprising the Admiralty Group; and Kieta, the former German portion of the Solomon Islands. Each district is under a District Officer, assisted by a small staff.

7. **Reports to the League of Nations.**—Seventeen reports have been rendered to the League of Nations in compliance with Article 6 of the Mandate, the latest being for the year ended 30th June, 1937.

§ 3. Population.

1. **White Population.**—The number of the white population at various intervals since 1885 is shown in the following table. At the 30th June, 1937, the white population was 4,286, of whom 3,329 were British subjects.

TERRITORY OF NEW GUINEA.—WHITE POPULATION.

Year.				Number.	Year.				Number.
1885	..	..	..	64	1933	..	..	..	3,191
1930	..	..	..	2,850	1935	..	..	..	4,176
1931	..	..	..	2,900	1936	..	..	..	4,281
1932	..	..	..	3,100	1937	..	..	..	4,286

2. **Asiatic Population.**—Malays seem to have been the first Asiatics brought by the Germans to German New Guinea; 37 of them were recorded on the mainland in 1885.

About 1889 the New Guinea Company began to bring Chinese, Malays and Javanese in growing numbers from Singapore and Java to work on the plantations; in the year 1892 there were about 1,800 Asiatics on the mainland. By 1898 the number had decreased to 300 or 400, but it had risen to 1,830 at the time of the Census in 1933 and now numbers 1,611, of whom the greater majority are Chinese. The Japanese at the 1933 Census numbered 73. The Chinese provide the skilled artisans of the Territory, and many of them are small traders. Most of the Japanese residents are employed on the plantations, or in shipyards and stores.

3. **Native Population.**—As a large portion of the Territory is not under Government influence it is not possible to obtain reliable figures in regard to the number of the natives.

The following table shows the number enumerated as at 30th June, 1937 :—

TERRITORY OF NEW GUINEA.—NATIVE POPULATION, ENUMERATED 30th JUNE 1937 (INCLUSIVE OF INDENTURED LABOURERS).

District.	Children.			Adults.			Total.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
Kieta ..	8,686	7,530	16,216	15,269	13,449	28,718	23,955	20,979	44,934
Madang ..	15,127	12,840	27,967	23,778	21,069	44,847	38,905	33,909	72,814
Manus ..	2,754	2,373	5,127	5,245	4,545	9,790	7,999	6,918	14,917
Morobe ..	29,712	25,734	55,446	45,370	40,088	85,458	75,882	65,827	141,709
New Britain ..	20,084	17,620	37,704	34,389	25,512	59,901	54,473	43,132	97,605
New Ireland ..	7,186	6,417	13,603	10,419	11,780	22,199	23,573	25,187	48,760
Sepik ..	27,796	22,826	50,622	37,785	35,903	73,688	65,581	58,729	124,310
Total ..	111,345	95,340	206,685	178,355	152,305	330,660	289,700	247,645	537,345

(a) Including 5,049 Mission scholars, constabulary, etc.

The total native population of New Guinea is estimated roughly at about 660,000. Whether the number is increasing or decreasing cannot be ascertained with certainty. The number of natives indentured as labourers, mostly for plantation work, on 30th June, 1937, was 40,259, compared with 36,927 in the previous year.

§ 4. The Natives.

1. **General.**—The natives are divided into two main groups—Melanesian and Papuan—the former, with a few exceptions, constitute the population of the Bismarck Archipelago, the Solomon Islands, and of the coastal districts of the New Guinea mainland, while the latter inhabit the interior of the mainland. Odd tribes of Negritos exist in the mountains of New Guinea. There is a strain of Papuan, and, possibly, of Polynesian blood in the Admiralty Islanders, while the Western Islanders and the inhabitants of the small islands east and south-east of New Ireland are Micronesians. (See Official Year Book, No. 16, p. 670, and Official Handbook of the Territory, Pt. V.)

2. **Land Tenure.**—Native customs in regard to the ownership and use of land may be briefly outlined as follows: The ownership and use of the land are generally individual, although, in some rare cases, particularly in North Bougainville, the communal system exists. In districts where a great many coconut palms are growing on native lands it is often found that the land is the property of a chief or of one of the old men of the tribe and that the coconut palms growing thereon are divided into small groves, and are the property of several members of the tribe. Customs with regard to the use of unoccupied forest lands vary. Right of inheritance to land is almost invariably through the maternal branch. (See Official Year Book No. 17, p. 634, and Official Handbook of the Territory.)

3. **Research Work.**—During the German occupation of the Territory a certain amount of research work was carried out, partly by scientific expeditions, and partly by missionaries and by a local resident. An anthropologist is engaged consolidating the work already done, and extending it throughout the Territory. The results of his work appear in special reports.

4. **Education.**—The education of the natives is provided for in the Education Ordinance of 1922-1933 under which the Administrator is authorized to establish schools, grant money therefor, prescribe instruction, and arrange for the training of teachers and other matters. The expenditure on native education in 1936-37 was £5,862. Though the natives are liable to pay education tax, none has been collected since 1922-23. The European teachers have been seconded from the Education Department of Queensland. During the year ended 30th June, 1937, the following schools were maintained by the Administration:—Native elementary schools and native day schools, Malaguna and Nodup, near Rabaul, and Kavieng and native elementary school at Chimbu (Morobe); native technical school, Malaguna; native agricultural school, Keravat. In addition there are schools for Europeans at Rabaul, Kavieng and Wau.

A considerable amount of educational work is carried out by the missions, the schools maintained being of three classes: (a) elementary schools in villages; (b) intermediate boarding schools at headquarters; and (c) high schools and technical schools. At the end of June, 1937, the various missions maintained 41 training centres, 63 high and technical schools, 142 elementary schools, and 2,149 village schools. The pupils numbered 72,994.

The missions also conduct schools for Chinese children in Rabaul and Kavieng.

The granting of assistance to mission schools is provided for by the Education Ordinance, but no grants have hitherto been made.

5. **Health of Natives.**—In a report dealing with the health of the natives in New Britain submitted before the war, it was stated that "the natives in the districts examined are not degenerate; but they are sick." The same qualification undoubtedly applies to the native population throughout the Territory.

The diseases taking the greatest toll of native life directly or through lowering vitality are:—Malaria, respiratory diseases, dysentery, frambæsia, yaws, tropical ulcer, hookworm, filariasis and beriberi.

The Health Department in Rabaul consists of:—(i) a staff of medical officers and orderlies, including travelling doctors; (ii) native hospitals at Government stations and sub-stations (its staff also supervises hospitals on plantations); (iii) a laboratory; (iv) training system for natives as medical orderlies; (v) scheme of distribution of medical necessities; and (vi) two leper-stations. It also undertakes the general oversight of sanitary conditions. The first Infant Welfare Centre in the Territory was opened in Malabunga in August, 1931.

6. **Missions.**—Several mission societies are operating in the Territory. The Society of the Sacred Heart of Jesus works in the Bismarck Archipelago, the Society of the Holy Ghost along the coast of North-East New Guinea from Sek to the Dutch border, the Marists in Buka and Bougainville. These are Roman Catholic Missions. The Protestant Missions are the Australian Methodist Mission in New Britain and New Ireland, the New Zealand Methodist Mission in Bougainville, the Liebenzell Mission in the Admiralty Group, the Lutheran Mission (supported and staffed by the Lutheran Churches in Australia and America), which works along the coast of North-East New Guinea from Sek to the Papuan border, the Melanesian Mission (Anglican) in New Britain, and the Seventh Day Adventist Mission in Bougainville and New Britain. All these societies combine teaching and planting with their missionary work.

§ 5. Land Policy.

1. **Acquisition of Land.**—A short account of the modes of acquiring land appears in Official Year Book No. 19, p. 590, but considerations of space preclude its repetition.

2. **Land Policy of the Present Administration.**—The Land Ordinance 1922-1937 provides for sale as well as leasing of land belonging to the Administration. The divergence from the policy usually adopted by the British in the Pacific (including Papua), which provides for leasehold only, was made with a view to disposal by sale of the freehold properties taken over from Germans, and which until 1927 were controlled by the Expropriation Board. The general land policy of the Administration is based on the leasehold principle. All Administration grants or leases contain a reservation to the Administration of all minerals, including mineral oil. Leases are for a term of 99 years except where a shorter period is provided. Administration lands, except in towns, are classified by a Land Board into land suitable for agriculture (Class A) and land not so suitable (Class B), and the unimproved value of the land is assessed. In the case of agricultural leases for more than 30 years the rent is 5 per cent. of the unimproved value, with power to remit during the first ten years, and subject to reappraisal every 20 years. Pastoral leases of lands of Class B may be granted for terms not exceeding 30 years, at a rental of $2\frac{1}{2}$ per cent. of the unimproved value, subject to reappraisal every 10 years.

Agricultural leases are subject to improvement conditions and pastoral leases to stocking conditions. Leases of town allotments may be granted for terms not exceeding 99 years, at a rent to be fixed at such percentage of the unimproved value as is prescribed.

A total area of 294,745 hectares (about 736,863 acres) had been alienated up to the 30th June, 1937. The area alienated in 1936-37 was 4,270 hectares (about 10,675 acres).

3. **Registration of Titles.**—Under German law there was a system of registration of titles in a "Ground Book," but registration did not confer an indefeasible title. The German system has been replaced by one modelled on the Torrens plan, embodied in an Ordinance entitled the Lands Registration Ordinance 1924-1937.

§ 6. Production.

1. **General.**—The natives have been described as a people of peasant proprietors, practising a crude form of agriculture. Their gardens and groves furnish but a small amount of produce for oversea trade, and the exports of the Territory grew only as European plantations were made, and natives were employed to work them. In recent years scientific methods of cultivation have been adopted, and production has been greatly increased thereby. Bounties are paid by the Commonwealth Government on cocoa beans and shells, hemp and coir, sago, vanilla beans, bamboos and rattans, spices and kapok produced in the Territory and imported direct to Australia for home consumption.

2. **Agriculture.**—(i) *General.* Under the supervision of the Director of Agriculture soil analysis has been undertaken in different parts of the Territory. A demonstration plantation has been established at Keravat where natives are being trained in tropical agriculture. A laboratory and a herbarium have been established, an entomologist and economic botanist engaged, and travelling inspectors appointed for the purpose of combating plant pests. Experiments are being carried on with a variety of crops. The foregoing measures, in conjunction with the Papua and New Guinea Bounties Act 1937 and the preference given by the Commonwealth Tariff to certain produce grown in the Territories, have greatly stimulated tropical agriculture.

(a) *Coconuts.* Coconut-growing is by far the most important industry in the Territory. Low prices checked expansion during recent years, but the price rose sharply during 1936-37 and the exports of copra advanced from £761,300 to £1,231,300, with an increase in quantity of 9,725 tons.

(b) *Tobacco.* Many planters are cultivating tobacco to cater for the local market. Two companies have manufactured tobacco suitable for issue to the natives or for trade. In some instances planters are issuing the dry leaf to the native labourers who make their own cigars and cigarettes.

(c) *Cotton.* In 1924-25 the Government obtained 1,615 lb. of cotton seed, and cultivation was tried at the experimental stations as well as by private planters, including a few natives, but little progress has been made.

(d) *Kapok.* The cultivation of kapok was continued on a small scale. The local demand is more than sufficient to absorb the available crop.

(e) *Cocoa.* Greater interest is being displayed in the cultivation of cocoa. The quality of the beans produced is good, and 132 tons, or an increase of 5 tons over the previous year's figures, were exported during the year.

(f) *Desiccated Coconut.* Three desiccated coconut factories are established in the Territory. The quantity exported during 1936-37 was 1,632 tons.

(g) *Coffee.* Two plantations of coffee are in satisfactory condition and are commencing to yield. Fifty-one tons of coffee valued at £4,100 were exported during the year. The coffee is of good quality and is well received on the Australian market.

(h) *Other Crops.* The climate and soil of New Guinea are suitable for the cultivation of rice, Manilla hemp, cinchona, nutmeg, vanilla, peanuts and maize, but hitherto their cultivation has either not advanced beyond the experimental stage or has been attempted on a small scale only. Sugar-cane of many varieties flourishes, and the natives cultivate extensive areas for their own use; other indigenous food-producing plants include the sago palm and the cassava.

(i) *Plants Yielding Power Alcohol.* It seems probable that alcohol for power purposes will be obtainable economically from the Territory. The sago palm and nipa palm yield as much as 60 gallons a ton, and in places are abundant.

(ii) *Plantations.* During the year 1934-35 the Administration disposed of the several plantations maintained by it with the exception of the demonstration plantation at Keravat. The principal crops grown on plantations are shown in the table hereunder for the year ended 30th June, 1937. The figures are not complete, but they give an indication of the state of agriculture in the Territory.

TERRITORY OF NEW GUINEA.—PLANTATIONS, 1936-37.

(Exclusive of Native Reserves.)

Crop.	Area Planted.		Area Bearing.		Yield.
	Acres.		Acres.		Tons.
Coconuts	234,189		190,003		70,124
Cocoa	3,210		1,441		137
Coffee	1,426		544		47
Rubber	2,654		..		..
Kapok	600		241		6
Native Food (a) ..	1,577		776		1,180
Other	410		245		..
Total	244,066		193,250		..

(a) Native food of all kinds is mostly grown between young coconut palms not yet in bearing.

The area of plantations at various periods from 1885 to 1937 is shown hereunder. As in the case of the previous table, the figures are exclusive of native plantations:—

TERRITORY OF NEW GUINEA.—PLANTATIONS.

Year ended June.				Total Area.	Area Planted.	Area under Coconuts (including Area not in Bearing).
				Acres.	Acres.	Acres.
1885	..	..	..	148	(b)	(a)
1895	..	..	..	2,152	(b)	(a)
1911	..	..	..	58,837	(b)	51,510
1914	..	..	..	84,488	(b)	76,847
1924	..	..	..	411,275	(b)	172,373
1932	..	..	..	460,942	216,730	211,882
1933	..	..	..	514,250	219,490	214,290
1934	..	..	..	486,404	218,648	210,849
1935	..	..	..	473,260	227,697	218,779
1936	..	..	..	484,358	239,867	229,227
1937	..	..	..	487,375	244,066	234,189

(a) Not recorded.

(b) Not available.

3. **Live Stock.**—The coconut plantations are now of a sufficient area to maintain numerous live stock, the stock being depastured on the indigenous grasses growing between the rows of palms. In 1936-37 there were 1,036 horses, 18,923 cattle, 1,602 sheep, 8,765 goats, and 5,500 pigs (exclusive of the large number of pigs kept by the natives).

4. **Timber.**—An investigation of the timber resources has been made by the Commonwealth Inspector-General of Forests, and a report in connexion therewith was published in 1926. According to this report, while offering no prospects of immediate gain to large saw-milling interests, the Territory possesses forest potentialities of a high order. The timber required for house and shipbuilding and for other purposes is mostly obtained locally. In North-East New Guinea the Lutheran Mission and the Holy Ghost Mission both possess up-to-date saw-milling plants, while most of the timber required in the Archipelago is supplied by the Sacred Heart Mission's saw-mill and three privately owned mills in New Britain. The timber required for the gold-fields is produced locally.

The Forestry Ordinance 1936-1937 provides for the issue of permits and licences to cut timber. Timber growing on native lands cannot be acquired by private purchasers directly from the natives, but must be obtained through the Administration. A royalty is payable on all forest produce taken under a permit or licence. Twenty-two timber permits were issued during the year 1936-37, of which eleven were for areas on the Morobe gold-field, where several small saw-mills were in operation supplying timber for building and mining purposes throughout the gold-field.

5. **Fisheries.**—The wealth of the waters of the Territory has so far been little exploited. Fish is caught at many places along the coast to supply the small local demand of the natives and of the few resident Europeans. Pearl-shell is exported in fair quantities, while bêche-de-mer, trochus-shell and tortoise-shell also figure amongst the exports. The value of marine products exported in 1936-37 was £28,310, compared with £29,595 in the previous year.

6. **Mining.**—Except for gold there has been little mining in New Guinea, and knowledge of the mineral resources is as yet but scanty. Gold has been discovered on the Waria, the Ramu, the Francisco, and the Markham Rivers, etc. Rich gold was discovered in the Morobe District in 1926; the field is situated about 60 miles (35 by air) inland from Salamaua, the nearest coastal port. Communication has been established with the coast by a regular aeroplane service. Osmiridium is reported to have been

found on the upper tributaries of the Ramu, and platinum on the Kabenau River. Copper has been discovered in the form of chalcopyrite and malachite in the Baining District. Iron occurs as magnesite and hæmatite in the Baining District, apparently in large quantities. Sulphur occurs in several localities in the volcanic regions of the Territory. Brown coal has been found on the mainland in the vicinity of Astrolabe Bay, and in the southern portion of New Ireland.

Mining is regulated by the Mining Ordinance 1928-1936. Copies of the Ordinance and Regulations made thereunder may be obtained from the Secretary, Prime Minister's Department, Canberra, or the Administrator, Rabaul.

The following table shows the production of gold during the past five years :—

TERRITORY OF NEW GUINEA.—GOLD PRODUCTION.

Year.					Quantity.	Value.(a)
					Fine oz.	£
1932-33	..	..	..	..	121,913	913,492
1933-34	..	..	..	..	155,000	1,260,000
1934-35	..	..	..	..	196,483	1,738,420
1935-36	..	..	..	..	190,848	1,669,504
1936-37	..	..	..	..	223,120	1,964,670

(a) Valued at average price realized for fine gold in Australia.

Since the high market price of gold has been maintained, the search for profitable areas in various parts of the Territory has not diminished and systematic testing by drilling and other means has been undertaken on alluvial areas previously considered unworthy of attention. Although there were no new discoveries of alluvial or reef gold during the year the gold-bearing area in the Sepik District attracted miners from the Morobe gold-field and some satisfactory results were obtained.

Under the Petroleum Ordinance 1936, private companies incorporated or registered in the Territory, two-thirds of whose shares are held by British subjects, are eligible to engage in prospecting and mining for mineral oil and coal. On the 30th June, 1937, two permits to search for mineral oil were in force.

§ 7. Trade.

1. **Customs Tariff.**—With the exception of high revenue rates on ale, spirits, beverages and tobacco and a duty of 3d. per gallon on petrol, kerosene and lubricating oil, the tariff of the Territory of New Guinea is generally on a 10 per cent. *ad valorem* basis. Only 55 items are mentioned in the import schedule, of which approximately 32 are on the free list consisting of articles for use by the Administrator, the Trade Commissioners and the Missions, medical supplies, live stock, meat, fish, fresh fruit, vegetables and certain essential manufactures for use in the Territory. The rate of duty for the remaining articles as well as for all other goods not mentioned in the schedule is 10 per cent. *ad valorem*. No preferential tariff rates are provided in the schedule.

Export duties are levied on copra, trepang, shell, feathers and sulphur. When the price, or the assessed value of copra is less than £5 15s. per ton no tariff is imposed, but when the price exceeds this figure up to £11 per ton 2s. 6d. per ton is charged, which increases on a sliding scale to 11s. 6d. per ton as the price rises to £18, with an additional 2s. per ton for every further increase of £1 in the price of copra. Excluding specie the imports in 1936-37 amounted to £1,311,623 on which £188,953 was received in import duties, while £32,451 was paid in export duties and royalties.

Provision is made in the Australian Customs Tariff (Papua and New Guinea Preference) 1936 for the free entry into Australia of certain goods produced and imported

direct from the Territory of New Guinea (see Chapter XVI. § 2 par. 4 (iv)), and a proclamation of 25th September, 1935, exempted from primage duty goods the produce or manufacture of the Territory.

2. **Imports and Exports.**—Values of the principal items of imports and exports for the last five years are shown hereunder. The values of exports are expressed in Australian currency, but it is not possible to accurately determine the meaning of the £ in the table of imports :—

TERRITORY OF NEW GUINEA.—IMPORTS AND EXPORTS.

Particulars.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
IMPORTS.					
	£	£	£	£	£
Foodstuffs of animal origin ..	89,692	88,011	94,417	127,110	142,943
Foodstuffs of vegetable origin ..	115,905	108,992	121,146	159,287	186,732
Spirituans and alcoholic liquors ..	38,763	39,757	44,215	50,665	50,550
Tobacco and preparations thereof	51,841	43,743	38,777	53,213	59,045
Live animals ..	1,391	1,287	1,630	1,617	1,870
Animal substances ..	255	276	223	636	1,227
Vegetable substances and fibres	3,323	3,018	2,355	3,884	3,539
Apparel, textiles and manufac- tured fibres. ..	123,657	106,022	117,670	171,092	152,923
Oils, fats and waxes ..	47,111	52,867	41,374	72,956	56,982
Paints and varnishes ..	10,312	6,736	10,472	13,599	14,422
Stones and minerals ..	14,064	11,955	8,741	12,291	14,039
Metals, manufactures and mach- inery ..	284,923	337,920	312,218	426,007	431,216
Rubber and leather and manu- factures ..	7,868	6,890	12,028	15,222	13,810
Wood and wicker ..	16,806	15,686	13,650	26,279	28,860
Earthenware, cement, glass, etc.	7,351	9,739	18,236	13,807	17,113
Paper and stationery ..	15,951	14,259	16,777	23,583	22,917
Jewellery and fancy goods ..	8,571	11,829	11,014	12,764	11,282
Optical and scientific instruments	15,389	11,937	17,521	22,019	18,610
Drugs, chemicals and fertilizers ..	29,884	25,580	30,905	38,716	44,907
Miscellaneous ..	29,308	27,803	35,035	45,951	38,630
Specie ..	6,790	8,500	4,589	133,600	80,400
Total ..	919,155	932,816	952,993	1,424,388	1,392,023
EXPORTS.					
	£	£	£	£	£
Copra ..	543,906	283,329	361,413	761,309	1,231,309
Cocoa ..	2,292	3,479	3,479	3,810	6,600
Ivory nuts ..	131	566	186	552	767
Trepang ..	3,900	4,400	5,800	5,025	1,350
Shell (trochus, etc.) ..	17,585	20,482	20,115	24,570	26,960
Tortoise shell ..	48	88	82	103	50
Gold ..	933,940	1,367,616	1,897,244	1,704,498	2,020,667
Desiccated coconut ..	73,452	81,562	45,080	65,880	86,930
Miscellaneous ..	6,018	4,676	7,225	7,504	45,073
Total ..	1,581,272	1,766,198	2,340,624	2,573,251	3,419,706

3. **Direction of Trade.**—Particulars of the countries of origin of the imports into the Territory of New Guinea and the destination of the goods shipped therefrom during the past three years are as follows:—

TERRITORY OF NEW GUINEA.—DIRECTION OF TRADE.

Country.	Imports.			Exports.		
	1934-35.	1935-36.	1936-37.	1934-35.	1935-36.	1936-37.
	£	£	£	£	£	£
Australia ..	433,309	675,652	620,079	2,009,162	1,950,240	2,359,261
United Kingdom ..	130,527	184,821	148,551	116,183	204,213	289,210
Other British ..	8,996	61,927	83,490	..	520	6,523
China ..	40,244	49,553	57,705	5,914	5,599	3,445
Japan ..	42,757	76,030	73,747	9,839	12,035	10,027
France ..	3,944	5,632	2,955	32,349	44,951	..
Germany ..	47,218	54,441	63,084	45,941	98,261	95,991
United States of America ..	135,299	204,608	215,223	..	5	40,359
Other ..	110,699	111,724	127,189	121,236	197,427	614,890
Total ..	952,993	1,424,388	1,392,023	2,340,624	2,573,251	3,419,706

The bulk of the imports into the Territory of foodstuffs, beer, coal, paints, boats, launches and soap comes from Australia, which also supplies large quantities of machinery and metal manufactures, drugs, explosives, tobacco, cigarettes, apparel, boots, leather manufactures, timber, stationery and polishes.

The principal export from the Territory to Australia is gold which comes for refinement and reshipment abroad. Copra in excess of requirements also comes to Australia for sale and reshipment overseas.

§ 8. Shipping and Communication.

1. **General.**—A subsidized mail service between New Guinea and Australia is maintained by Burns, Philp and Co. Ltd. The vessels of the Eastern and Australian Steamship Co., which maintains a regular monthly service between Australia, China and Japan, have included Rabaul as a port of call. The Dutch Royal Packet Navigation Co.'s vessels, which maintain a service between Singapore and Australia, also call at Rabaul, and the Norddeutscher Lloyd has established a regular service between Hong Kong and Rabaul. W. R. Carpenter and Co. Ltd. run a service with two vessels between Europe, Australia and the Territory. Shipping within the Territory is regulated by the Shipping Ordinances 1936 and the Coastal Shipping, Ports, and Harbours Regulations.

2. **Oversea Tonnage in 1936-37.**—The number and net tonnage of oversea vessels which entered and cleared the Territory during the year 1936-37 are shown hereunder:—

TERRITORY OF NEW GUINEA.—SHIPPING, 1936-37.

Nationality.	Vessels Entered.		Vessels Cleared.		Total.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
American ..	3	8,569	3	8,569	6	17,138
British ..	88	256,769	85	254,637	173	511,406
Dutch ..	5	9,811	5	9,811	10	19,622
Norwegian ..	1	2,452	1	2,452	2	4,904
German ..	16	17,316	13	16,786	29	34,102
Japanese ..	15	34,650	15	34,650	30	69,300
Total ..	128	329,567	122	326,905	250	656,472

3. **Local Shipping.**—Vessels controlled by Burns, Philp and Co. Ltd. and W. R. Carpenter and Co. Ltd. extend their activities to the inter-island trade, and the vessels of the Norddeutscher Lloyd also call at several ports in the Territory.

4. **Land Communication.**—Means of communication on land are scanty. There are no railways. Roads lead from Rabaul to places within 30 or 40 miles, and there is a road 200 miles long in New Ireland. Elsewhere there are few roads outside plantations and the stations of the District Officers. The large rivers of the mainland are as yet but little used.

There is a high power wireless station at Rabaul, and low power installations at the out-stations, including Salamaua and Wau.

5. **Communication by Air.**—The discovery of gold in New Guinea has resulted in great aviation activity in the vicinity of the gold-fields. On account of the mountainous country and dense undergrowth between the coast and the gold-fields the task of transporting food and stores to the fields and of bringing the gold to the seaboard by land is an irksome and costly process. The fields are situated about 60 miles (35 by air) inland from Salamaua, and whereas aircraft cover the distance in approximately an hour, the nature of the country is such that a journey by other means occupies more than a week. During 1931-32 an air service was established between Port Moresby and the gold-fields, reducing the time occupied by the journey from Australia by about seven days. At 30th June, 1937, 34 aeroplanes were operating in the Territory.

A contract has been entered into between the Commonwealth Government and W. R. Carpenter & Co. Ltd., for the conduct of a weekly air service for a period of five years between Sydney in New South Wales, Port Moresby in Papua and Rabaul in New Guinea, calling at intermediate stations en route. The service commenced in May, 1938.

§ 9. Revenue and Expenditure.

Details of the revenue collected from various sources and the expenditure during each of the last five years are given hereunder:—

TERRITORY OF NEW GUINEA.—REVENUE.

Particulars.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37
Taxation—	£	£	£	£	£
Customs (a)	153,524	157,343	164,481	207,172	233,657
Licences	10,082	10,551	10,097	10,900	12,654
Native Head Tax	22,069	23,610	19,805	19,641	21,859
Stamp duties	4,373	5,567	8,716	5,689	6,861
Postal	17,413	10,246	11,534	16,333	25,208
Lands	14,046	14,662	14,558	15,485	17,006
Mining—					
Royalty on gold	46,670	67,331	88,233	81,169	97,622
Other	22,923	22,149	27,591	18,996	24,154
Fees and fines	17,745	27,961	29,829	29,342	24,377
Sales of stores, etc.	3,264	3,231	2,215	1,615	2,605
Miscellaneous	9,808	7,706	11,112	13,578	15,067
Total	321,917	350,357	388,171	419,920	481,070

EXPENDITURE.

	£	£	£	£	£
Treasury and Audit	40,730	43,258	33,444	44,851	66,177
Agriculture	11,590	11,861	13,389	14,001	15,851
Public Justice	13,897	17,679	21,839	30,549	31,209
Public Health	60,235	61,527	61,851	68,153	73,191
Public Works	14,468	16,040	17,104	27,260	29,228
District Services and Native Affairs	98,552	108,851	99,318	97,694	109,705
New Works	24,591	30,540	61,806	76,760	66,223
Native Welfare	4,917	7,577	7,202	6,993	6,177
Other	52,587	51,484	51,517	59,533	62,357
Total	321,567	348,817	367,470	425,794	460,118

(a) Including harbour dues, wharfage and storage fees.

NAURU (Mandated).

1. **General.**—Nauru is an oval-shaped atoll about 12 miles in circumference having an area of about 5,263 acres, of which approximately two-thirds is phosphate-bearing. It is situated in long. 166° E., and is 26 miles south of the Equator. Portion of the island between the sandy beach and the coral cliffs is fertile, and it is there that the Nauruans reside. With the exception of a small fringe around an inland lagoon, the plateau which contains the phosphate deposits possesses few food plants and is uninhabited, but portion of the area has been planted with fruit trees. The system of land tenure is governed by an old custom, and, with the exception of small allotments held by the Government, the British Phosphate Commissioners and Missions, the whole of the island is owned by individual natives. The average shade temperature ranges between 72° and 95° F., and the average humidity between 70 and 80. The average rainfall is 85 inches, but droughts occasionally occur, and in 1916 and 1917 only 40 inches were received for the two years. In 1937 the rainfall was 50.88 inches.

2. **History.**—The island, discovered by Captain Fearn in 1798, was annexed by Germany in 1888, and prior to 1914 was part of the protectorate of German New Guinea.

In November, 1914, Nauru was occupied by a detachment from the Australian Naval and Military Expedition at Rabaul, and it was included in the cession of colonies made by Germany in 1919 to the Allied and Associated Powers, whose representatives agreed that a mandate for its administration should be conferred upon His Britannic Majesty. The mandate, which is in similar terms to that for the Territory of New Guinea, was confirmed by the Council of the League of Nations on the 17th December, 1920. On 2nd July, 1919, the British, Australian and New Zealand Governments agreed that the administration of the island (which, since 1915, had been in charge of an official appointed by the British Colonial Office) should be vested in an Administrator who entered on duty in June, 1921. The first Administrator was appointed for a term of five years by the Australian Government; his term of service having expired, it was extended for another five years, but he resigned in 1927. The second Administrator was appointed in June, 1927. The third Administrator was appointed by the Commonwealth of Australia in January, 1933. The Agreement between the three Governments was approved by the Commonwealth Parliament in the Nauru Island Agreement Act 1919, and is printed in the Schedule to that Act. A supplementary agreement concerning Nauru was drafted in May, 1923, and ratified by the Commonwealth Parliament by the Nauru Island Agreement Act 1932.

3. **Administration.**—The administration of the Island is vested in the Administrator, who is obliged to conform to instructions issued by the Government which appointed him, and all ordinances made by him are subject to confirmation or disallowance by the Governor-General of Australia (for the time being) acting on the advice of the Federal Executive Council. All expenses of administration are met from local revenue. Native industries such as canoe-building, fishing, mat-making, etc., are encouraged by the provision of prizes at annual competitions. An agency of the Commonwealth Savings Bank has been established. There is a co-operative store managed to a large extent by the natives. The books, however, are audited by Government officers. Natives are not allowed to carry or be in possession of firearms, and the use by them of intoxicating liquors and deleterious drugs is prohibited.

4. **Population.**—The population figures on 1st April in each of the years from 1933 to 1937 are given hereunder:—

NAURU.—POPULATION.

Nationality.	1933.(b)	1934.	1935.	1936.	1937.
Europeans	165	163	158	179	194
Chinese	935	933	931	1,092	1,261
Nauruans (a)	1,527	1,567	1,603	1,647	(c) 1,638
Other Pacific Islanders ..	13	14	4	4	4
Total	2,641	2,677	2,696	2,922	3,097

(a) The natives of Nauru are Micronesians
Nauruans were absent from the Island on 1st April, 1937.

(b) Census, 30th June, 1933.

(c) Thirty-four

Births in 1937 numbered 78 (76 Nauruans, 1 European, and 1 Chinese). There were 27 marriages (24 Nauruans), and 55 deaths (50 Nauruans, 1 European, 3 Chinese and 1 Pacific Islander).

5. **Health.**—Cases of the usual diseases known in the Pacific occur. Venereal disease is rare, but elephantiasis is occasionally met with. An area has been set apart for the segregation of lepers, and the latest methods of treatment are applied. In 1937, there were 61 lepers in segregation. The treatment and control of leprosy have been very successful. Two hospitals are maintained on the island, one by the Administration for Nauruans, and one by the British Phosphate Commission for its employees. In common with other natives, the Nauruans are very susceptible to tuberculosis and influenza, and in 1921 an influenza epidemic caused the deaths of 230 islanders. Dysentery, both amœbic and bacillary, is endemic. A regular anti-mosquito campaign is conducted. The usual steps have been taken by the authorities to improve the water supply and to provide efficient sanitation generally. Every Nauruan is required to undergo a medical examination once a month. Baby clinics have been established to give help and advice to Nauruan mothers in regard to infant nurture.

6. **Education.**—On the 1st October, 1923, the Administration took over the education of the Nauruan and other native children, and native schools were established in five districts and at the leper station. Previously education had been looked after by the Missions subsidized by the Government. A school for European children is presided over by a teacher on loan from the Education Department of Victoria who also supervises educational matters generally. The curriculum is similar to that of corresponding schools in Australia, and the teaching is, as far as possible, wholly in English. Education is compulsory between the ages of six and sixteen. After the termination of ordinary school attendance, twelve months are devoted to technical training. The children in attendance at school in 1937 numbered 30 Europeans and 487 Nauruans. The schools are closed on two afternoons a week in order that the children may attend the classes in religious instruction conducted at the Mission churches. Educational classes for adults have been inaugurated. Units of the Boy Scouts and Girl Guides (Nauruan) have been established on the island.

7. **Judiciary.**—The judicial power is vested in the Administrator in a Central Court and a District Court. The right of appeal is provided.

8. **Religion.**—The London Missionary Society (Protestant) and the Sacred Heart of Jesus Mission (Roman Catholic) operate in Nauru.

9. **Phosphate Deposits.**—(i) *General.* From 1906 to 1910 the deposits were worked by the Pacific Phosphate Company, which also worked the deposits on Ocean Island (about 165 miles east of Nauru and part of the Gilbert and Ellise Islands Colony administered by the Colonial Office). The quantity on Nauru has been estimated at not less than 50,000,000 tons, and the exports average 85 per cent. to 88 per cent. of tricalcium phosphate.

The interests of the Pacific Phosphate Company in the two islands (though not in other islands in the Pacific in which it has workings) were bought by the British, Australian and New Zealand Governments in 1919 for £3,500,000 the purchase money being contributed in the proportions of 42, 42, and 16 per cent. respectively. The Agreement of 2nd July, 1910, provides for the working of the deposits by the British Phosphate Commission of three members, one appointed by each Government; and the three countries are to receive the output in the same proportions of 42, 42, and 16 per cent.

(ii) *Royalty on Phosphate.* In an agreement entered into between the British Phosphate Commissioners and the Nauruan landowners in 1927 provision was made, *inter alia*, for the payment of a royalty of 7½d. per ton of phosphate exported, of which—

(a) 4d. per ton is paid to the Nauruan landowner concerned;

(b) 1½d. per ton to the Administrator for the benefit of the Nauruan people;

- (c) 2d. per ton to the Administrator to be held in trust for the Nauruan landowner concerned and invested at compound interest for a period of 20 years. The capital will then remain invested and the interest thereon will be paid to the landowner.

The rates specified above are to have effect for a period not exceeding 20 years on and from 1st July, 1927, but the royalty of 4d. per ton to the Nauruan landowner is subject to adjustment for the second, third and fourth five-yearly period by increasing or decreasing it pro-rata to any increase or decrease of the export price of the phosphate. The royalty for the second five-yearly period was increased to 4½d. per ton.

(iii) *Nauru and Ocean Island Phosphate Industry.*—The following table gives particulars regarding exports of phosphate during the last five years:—

NAURU AND OCEAN ISLAND.—EXPORTS OF PHOSPHATE.

Year.		Total.	To Australia.	To New Zealand.
			Per cent.	Per cent.
1932-33	.. ..	664,550	66.30	27.09
1933-34	.. ..	556,802	63.83	26.97
1934-35	.. ..	694,726	61.14	30.43
1935-36	.. ..	831,847	67.34	23.94
1936-37	.. ..	1,007,990	67.86	24.22

From Nauru alone during the calendar year 1937 the export was 688,900 tons.

(iv) *Accounts of Commission.* A statement for the five years ended June, 1937, is given hereunder:—

NAURU AND OCEAN ISLAND.—SALES OF PHOSPHATE.

Heading.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
	£	£	£	£	£
Receipts from Sales, etc. ..	882,277	684,409	769,483	835,148	916,690
F.o.b. cost, including interest on capital, sinking fund, etc.	876,898	610,239	758,845	828,818	910,673

The amount due by the British Phosphate Commission to the partner Governments for purchase money and other capital sums was £3,666,457 on 30th June, 1921, and at 30th June, 1937, this had been reduced to £3,188,333. The f.o.b. cost in 1936-37 includes a sum of £224,054 consisting of interest at 6 per cent. upon the purchase price and a contribution to a sinking fund for the redemption of the capital debt in 50 years. The redemption fund now totals £343,167.

(v) *Employees.* Apart from a limited number of Europeans and a few Pacific Islanders, the employees are Chinese engaged under a three year's contract. A few Nauruans are employed occasionally.

10. *Trade.*—The Customs Tariff of Nauru provides for the free admission of all goods other than cigars, cigarettes, tobacco, spirits, wines, beer, cider, and perry, and cylinder blocks for motor cycle engines. Articles imported by the Government for Government use and spirits for scientific purposes are exempt.

The Tariff rates apply to all countries alike. Information regarding imports and exports for the years 1933 to 1937 is appended :—

NAURU.—IMPORTS AND EXPORTS.

Heading.			Year ended 31st December—				
			1933.	1934.	1935.	1936.	1937.
Imports	..	£	97,684	98,085	168,595	154,940	144,454
Exports—							
Phosphate	..	ton	363,680	418,950	480,950	547,400	688,900
		£	4436,651	470,872	474,393	469,607	513,989

(a) Copra to the value of £136 was also exported.

Of the total imports Australia supplied £90,757 or 63 per cent. during 1937; the balance came from United Kingdom, Germany, United States, China and New Zealand in that order.

Phosphates were exported principally to Australia, 463,925 tons, and New Zealand 196,850 tons.

11. **Revenue and Expenditure.**—The revenue and expenditure of the Administration during the years 1933 to 1937 were as follows :—

NAURU.—REVENUE AND EXPENDITURE.

Heading.			Year ended 31st December—				
			1933.	1934.	1935.	1936.	1937.
		£		£	£	£	£
Revenue	..	..	19,779	19,798	23,487	24,906	53,343
Expenditure	..	..	18,748	19,758	20,666	23,989	29,311

Of the revenue in 1937, £31,179 was derived from Post Office receipts, including Coronation Stamp issue sales, £15,375 was royalty on phosphate, £2,480 consisted of Customs receipts, £1,615 of capitation taxes, and £210 of harbour dues and shipping fees. At the close of the year 1937 the accumulated funds of the Administration amounted to £54,509. Interest on investments during 1937 was £824 compared with £624 during the previous year.

CHAPTER XIII.

POPULATION.

§ 1. Enumerations and Estimates.

The nature of the early "musters" of the population and the subsequent Census enumerations which have been conducted in Australia were reviewed in Official Year Book, Number 15, pp. 1083-5. This review was accompanied by a tabular statement showing the dates on which the various enumerations were made, and the number counted on such occasions.

§ 2. Accuracy of Estimates of Population.

The results obtained at the Census attain a very high degree of accuracy and may generally be accepted without reservation.

Since the establishment of the Commonwealth Bureau of Census and Statistics attention has been given to the improvement of intercensal estimates. There was little doubt that the principal source of error was in the records of migration, and efforts were directed particularly to the improvement of these records with very gratifying results. The Census of 1911 disclosed an error in the pre-censal estimates of an amount equal to a percentage on the recorded oversea departures from Australia of 14.5 per cent. for males and 10 per cent. for females. After the Census of 1921 these adjusting factors were reduced to 1 per cent. for males and $4\frac{1}{2}$ per cent. for females, and from the results of the Census of the 30th June, 1933, it would appear that the accuracy of the records of oversea migration is such that in future no adjustment of the recorded figures for Australia as a whole will be necessary.

It is improbable that the same degree of accuracy as has been attained in the record of external migration can be reached in the case of interstate movements. Records are made of interstate movements by sea, by rail, and by air, but to record the movements by road is impracticable.

§ 3. Census, 1881 to 1933.

1. **Census of 1933.**—The first occasion on which the Census of the several Australian Colonies was taken on the same date was in the year 1881. Under the provisions of the Commonwealth Census and Statistics Act, which provides for the enumeration being dealt with from one centre instead of by each State as formerly, the first Census for the Commonwealth of Australia was taken by the Commonwealth Statistician in 1911, and the second in 1921. In accordance with the provisions of the Census and Statistics Act 1905-1930 the third Commonwealth Census would have been taken in 1931, but owing to the necessity for economy in government expenditure it was decided to defer that Census, and the date was subsequently fixed for the 30th June, 1933, the Census

for the whole of Australia being taken as for the night between the 29th and the 30th June, 1933. The numbers recorded in the several States and Territories on the 4th April, 1921, and the 30th June, 1933, were as follows :—

POPULATION.—CENSUS, 1921 AND 1933.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

State or Territory.	4th April, 1921.			30th June, 1933.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
States—						
New South Wales ..	1,071,501	1,028,870	2,100,371	1,318,471	1,282,376	2,600,847
Victoria ..	754,724	776,556	1,531,280	903,244	917,017	1,820,261
Queensland ..	398,969	357,003	755,972	497,217	450,317	947,534
South Australia ..	248,267	246,893	495,160	290,962	289,987	580,949
Western Australia..	177,278	155,454	332,732	233,937	204,915	438,852
Tasmania ..	107,743	106,037	213,780	115,097	112,502	227,599
Territories—						
Northern..	2,821	1,046	3,867	3,378	1,472	4,850
Australian Capital..	1,567	1,005	2,572	4,805	4,142	8,947
Australia ..	2,762,870	2,672,864	5,435,734	3,367,111	3,262,728	6,629,839

2. Increase since Census of 1881.—(i) *Australia.* The increase of population between the Census of 4th April, 1921, and that of 30th June, 1933, was 1,194,105, of which 604,241 were males and 589,864 were females, as compared with an increase of 680,729, comprising 449,835 males and 530,894 females, for the preceding ten years. The population enumerated at each Census from 1881 to 1933 was as follows :—

POPULATION.—AUSTRALIA, CENSUS, 1881 to 1933.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Date	Males.	Females.	Persons.	Masculinity. (a)
3rd April, 1881 ..	1,214,913	1,035,281	2,250,194	117.35
5th April, 1891 ..	1,704,039	1,470,353	3,174,392	115.89
31st March, 1901 ..	1,977,928	1,795,873	3,773,801	110.14
3rd April, 1911 ..	2,313,035	2,141,970	4,455,005	107.99
4th April, 1921 ..	2,762,870	2,672,864	5,435,734	103.36
31st March, 1931 (b) ..	3,316,423	3,197,704	6,514,127	103.71
30th June, 1933 ..	3,367,111	3,262,728	6,629,839	103.20

(a) Number of males to each 100 females, Census of 30.6.1933.

(b) These figures have been estimated from the

(ii) *States and Territories.* The postponement till 1933 of the Census which ordinarily would have been taken in 1931 created a divergence from the intercensal period of ten years which had been observed in Australia since 1881, and consequently the increase shown in the following table for the period 1921–33 (12½ years) is not directly comparable

with the results shown for the earlier periods. The corresponding increases for the ten-year period (1921-1931) have been estimated from the Census of 30th June, 1933, and have been inserted in the table. The increases in the population of the several States and Territories during the last five intercensal periods have been as follows:—

POPULATION.—INTERCENSAL INCREASES.

State or Territory.	1881-1891.	1891-1901.	1901-1911.	1911-1921.	1921-1931 (estimated)	1921-1933 (12½ years).
New South Wales .. {						
Number	374,129	230,892	293,602	453,637	450,930	500,476
Per cent.	49.90	20.54	21.67	27.55	21.47	23.83
Victoria .. {						
Number	278,274	61,230	114,481	215,729	206,178	288,981
Per cent.	32.30	5.37	9.53	16.40	17.38	18.87
Queensland .. {						
Number	180,193	104,411	107,684	150,159	164,388	191,562
Per cent.	84.39	26.52	21.62	24.79	21.75	25.34
South Australia .. {						
Number	39,119	42,813	50,212	86,602	80,024	85,789
Per cent.	14.15	13.57	14.01	21.20	16.16	17.33
Western Australia .. {						
Number	20,074	134,342	97,990	50,618	98,679	106,120
Per cent.	67.57	269.86	53.22	17.94	29.66	31.89
Tasmania .. {						
Number	30,962	25,808	18,736	22,569	10,674	13,819
Per cent.	26.76	17.60	10.86	11.80	4.99	6.46
Northern Territory {						
Number	1,447	(b) — 87	(b) — 1,501	557	1,104	983
Per cent.	41.93	(b) — 1.78	(b) — 31.20	16.83	28.55	25.42
Australian Capital Territory {						
Number	(a)	(a)	(a)	858	6,416	6,375
Per cent.	(a)	(a)	(a)	50.06	249.46	247.86
Australia .. {						
Number	924,198	599,409	681,204	980,729	1,078,393	1,194,105
Per cent.	41.07	18.88	18.05	22.01	19.84	21.97

(a) Included in New South Wales.

(b) Decrease.

For Australia as a whole the numerical increase during the period 1921-1931 was greater by 97,664 than that for the period 1911-1921, but the percentage increase declined from 22.01 for 1911-1921 to 19.84 for 1921-1931. During the earlier period the increase corresponds to 2.01 per cent. per annum, and in the latter to 1.83 per cent. per annum.

§ 4. Distribution and Fluctuation of Population.

1. **Present Numbers.**—The population of Australia on the 31st December, 1937, was estimated at 6,866,590 persons, of whom 3,473,819, or 50.59 per cent. were males and 3,392,771, or 49.41 per cent., were females. The increase during the year 1937 was 59,838, equal to 0.88 per cent., males having increased by 27,621, or 0.80 per cent., and females by 32,217, or 0.96 per cent. This increase was largely due to the excess of births over deaths, viz., 54,635, the net gain by migration being only 5,203 persons.

2. **Growth and Distribution.**—In issues of the Official Year Book up to No. 15, the male and female populations of Australia as a whole were given at quinquennial periods from 1788, but it is considered that the abridged table presented herewith will suffice for general purposes.

ESTIMATED POPULATION.—1800 to 1937.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

As at 31st Decem- ber—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Australia.
MALES.									
(a) 1800	3,780	..	..	..	..	..	..	..	3,780
1810	7,585	..	..	..	..	..	..	..	7,585
1820	23,784	..	..	..	..	..	..	..	23,784
1830	33,900	..	..	..	877	(b) 18,108	..	..	52,885
1840	85,560	..	..	8,272	1,131	32,040	..	..	127,307
1850	154,976	..	..	35,902	3,576	44,229	..	..	238,683
1860	197,851	(b) 330,302	(b) 16,817	64,340	9,597	49,653	..	..	668,560
1870	272,121	397,230	69,221	94,894	15,511	53,517	..	..	902,494
1880	404,952	450,558	124,013	147,438	16,985	60,568	..	..	1,204,514
1890	602,704	595,519	223,252	166,049	28,854	76,453	..	..	1,692,831
1900	716,047	601,773	274,684	180,349	110,088	89,763	(c) 4,288	..	1,976,992
1910	858,181	646,482	325,513	206,557	157,971	98,866	2,738	..	2,296,308
1920	1,067,945	753,803	396,555	245,300	176,895	107,259	2,911	(b) 1,062	2,751,730
1926	1,212,046	855,035	452,968	285,013	206,797	108,895	3,116	2,902	3,126,802
1927	1,241,763	870,718	460,310	280,303	215,841	110,023	3,560	3,000	3,194,858
1928	1,266,254	879,478	468,323	280,639	225,072	110,750	3,231	4,670	3,247,417
1929	1,283,241	886,472	473,948	288,597	231,361	112,244	3,496	4,736	3,284,095
1930	1,294,449	892,422	481,559	288,618	232,868	113,505	3,599	4,732	3,311,722
1931	1,302,893	896,429	487,932	289,397	232,397	115,176	3,462	4,891	3,332,577
1932	1,315,003	900,663	492,516	290,254	233,040	116,066	3,353	4,560	3,355,455
1933	1,324,839	905,050	497,468	291,722	234,442	116,801	3,370	4,997	3,376,779
1934	1,335,123	910,373	502,505	292,519	235,239	116,952	3,440	4,928	3,401,079
1935	1,344,339	917,710	508,381	293,050	237,229	117,978	3,482	5,005	3,421,774
1936	1,355,493	915,304	514,174	294,807	238,704	118,833	3,596	5,287	3,446,198
1937	1,368,505	918,665	519,689	295,611	241,117	120,860	3,611	5,512	3,473,810
FEMALES.									
(a) 1800	1,437	..	..	..	..	..	..	..	1,437
1810	3,981	..	..	..	..	..	..	..	3,981
1820	9,759	..	..	..	..	..	..	..	9,759
1830	10,688	..	..	..	295	(h) 6,171	..	..	17,154
1840	41,908	..	..	6,358	877	13,959	..	..	63,102
1850	111,924	..	..	27,798	2,310	24,641	..	..	166,673
1860	150,695	(h) 207,077	(h) 11,230	61,212	5,710	40,168	..	..	477,025
1870	225,871	326,695	46,051	89,652	9,624	47,369	..	..	745,262
1880	336,190	408,047	87,027	128,955	12,576	54,222	..	..	1,027,017
1890	510,571	538,209	168,864	152,898	19,648	68,334	..	..	1,458,524
1900	644,258	594,440	219,103	176,901	69,879	83,137	(c) 569	..	1,788,347
1910	785,674	654,926	273,503	200,311	118,861	94,937	563	..	2,128,775
1920	1,023,777	774,106	354,069	245,706	154,428	105,493	1,078	(h) 910	2,659,567
1926	1,164,632	856,952	409,518	275,912	178,436	108,680	951	2,137	1,997,218
1927	1,191,892	871,114	416,066	280,327	184,046	109,138	1,027	2,548	1,956,158
1928	1,216,875	882,268	422,554	282,948	189,549	109,569	1,023	3,567	1,908,353
1929	1,236,452	891,707	428,188	284,376	195,276	111,034	1,284	3,711	1,952,118
1930	1,251,934	900,183	435,177	285,849	198,742	111,792	1,365	3,987	1,989,029
1931	1,263,421	907,141	441,794	287,682	201,289	113,288	1,384	4,030	2,000,029
1932	1,276,728	912,724	446,581	289,039	203,271	114,540	1,433	4,004	2,008,320
1933	1,288,680	919,429	451,593	290,955	205,822	115,219	1,448	4,256	2,017,372
1934	1,301,080	927,117	456,902	291,775	207,371	114,495	1,504	4,264	2,026,598
1935	1,313,327	931,313	462,338	292,793	210,516	115,130	1,609	4,314	2,036,340
1936	1,326,243	936,289	467,960	294,505	212,853	116,495	1,709	4,500	2,046,554
1937	1,342,233	940,822	473,772	295,590	215,814	118,121	1,713	4,706	2,062,771

(a) Details as to sex not available for earlier years.

South Wales.

(c) Previously included with South Australia.

(b) Previously included with New

ESTIMATED POPULATION—*continued.*

As at 31st December—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Australia.
PERSONS.									
1788	859	..	..	..	..	..	..	..	859
1790	2,056	..	..	..	..	..	..	..	2,056
1800	5,217	..	..	..	..	..	..	..	5,217
1810	11,566	..	..	..	..	..	..	..	11,566
1820	33,543	..	..	..	..	..	..	..	33,543
1830	44,588	..	..	..	1,172	(b) 24,279	..	..	70,039
1840	127,468	..	..	14,630	2,311	45,999	..	..	190,408
1850	266,900	..	..	63,700	5,886	68,870	..	..	405,356
1860	348,546	(b) 538,234	(b) 28,056	125,582	15,346	89,821	..	..	1,145,585
1870	447,992	723,625	115,772	124,546	25,135	100,886	..	..	1,647,756
1880	741,142	858,605	211,040	276,393	29,561	114,790	..	..	2,231,531
1890	1,113,275	1,133,728	312,119	315,047	48,503	144,787	..	..	3,151,355
1900	1,360,305	1,196,213	493,847	387,280	176,967	172,600	(a) 4,857	..	3,763,339
1910	1,943,255	1,307,408	599,110	490,868	270,832	193,803	3,201	..	4,115,083
1920	2,091,722	1,527,909	750,624	491,006	331,323	212,752	3,989	(b) 1,972	5,411,297
1926	2,376,678	1,711,987	862,486	560,925	385,233	217,575	4,097	5,039	6,124,020
1927	2,433,655	1,741,532	876,385	569,630	390,897	210,151	4,506	5,870	6,281,016
1928	2,483,129	1,766,740	890,877	572,587	414,421	220,310	4,254	8,237	6,355,770
1929	2,519,693	1,778,269	903,136	577,973	420,637	223,278	4,780	8,417	6,416,213
1930	2,546,353	1,792,605	916,736	574,467	431,610	225,297	4,964	8,719	6,500,751
1931	2,566,314	1,803,570	929,726	577,079	433,686	228,464	4,846	8,921	6,552,606
1932	2,591,731	1,813,387	939,097	579,293	436,320	230,607	4,786	8,564	6,603,785
1933	2,613,519	1,824,179	949,691	581,677	440,264	232,110	4,818	(a) 9,253	6,666,151
1934	2,630,203	1,837,499	959,497	584,794	442,610	231,447	4,944	(a) 9,192	6,708,677
1935	2,657,666	1,843,023	970,719	586,443	447,745	233,108	5,091	(a) 9,319	6,753,114
1936	2,681,736	1,851,593	982,134	589,312	451,557	235,328	5,305	(a) 9,787	6,806,752
1937	2,710,738	1,859,487	993,461	591,201	457,111	238,990	5,354	(a) 10,248	6,866,590

(a) Previously included with South Australia.

(b) Previously included with New South Wales.

(c) See letter-press below.

Estimates of population for intercensal years are obtained by applying the vital and migration statistics for those years to the numbers recorded at the Census. Figures for inter-State migration are liable to error owing to the impracticability of tracing movements of motor traffic. The estimates of population of the Australian Capital Territory are particularly affected by this difficulty, and a supplementary Census for the Territory taken on the 30th June, 1938, revealed considerable understatement in the intercensal estimates of population during the preceding five years. The discrepancy is believed to be due to the unrecorded movements by road, and the following are revised estimates of population at the 31st December, based on corrected net migration figures for the years affected—1933, 9,341; 1934, 9,457; 1935, 9,701; 1936, 10,406; 1937, 11,043. As the corresponding State population estimates are affected by relatively small amounts only, it has been considered desirable to postpone the adjustments involved until the completion of the next Commonwealth Census, when they will be incorporated in the general revision of intercensal population estimates and migration records.

The results of the 1938 Census of the Australian Capital Territory will be found in § 14 of this chapter.

A comparison of annual rates of growth of population of Australia and other countries will be found in § 5 par. 4 of this chapter.

The growth of the population of Australia and of each State thereof is illustrated by the graph accompanying this chapter on page 327.

3. *Mean Population.*—(i) *Calendar Years.* The following table shows the mean population for each State and Territory for the calendar years 1927 to 1937.

MEAN POPULATION, CALENDAR YEARS, 1927 to 1937.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Year ended 31st December.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Nor. Terr.	Aust. Cap. Terr.	Australia.
1927 ..	2,403,881	1,727,734	870,643	565,284	392,071	213,051	4,451	7,469	6,184,584
1928 ..	2,460,410	1,751,974	884,845	570,863	407,576	215,471	4,459	8,193	6,303,766
1929 ..	2,503,026	1,770,133	897,599	572,457	420,756	217,752	4,467	8,541	6,394,701
1930 ..	2,532,289	1,786,217	910,319	573,242	429,079	220,933	4,979	8,961	6,466,019
1931 ..	2,555,871	1,799,241	924,825	575,717	432,347	224,811	4,959	8,801	6,526,572
1932 ..	2,579,741	1,808,618	935,575	578,010	435,041	227,084	4,917	8,925	6,577,911
1933 ..	2,601,782	1,820,568	945,451	581,019	438,688	228,432	4,860	(a) 9,086	6,620,861
1934 ..	2,623,560	1,830,898	953,581	583,313	441,611	229,191	4,833	(a) 9,129	6,678,349
1935 ..	2,645,575	1,839,361	966,198	585,015	445,384	229,616	5,101	(a) 9,382	6,725,632
1936 ..	2,667,839	1,847,665	978,589	587,549	450,036	231,046	5,255	(a) 9,705	6,777,744
1937 ..	2,694,679	1,856,033	989,668	589,143	454,295	233,951	5,411	(a) 10,195	6,833,375

(a) See letter-press following previous table. The following are revised estimates:—1933, 9,078; 1934, 9,435; 1935, 9,735; 1936, 10,295; 1937, 10,902.

(ii) *Financial Years.* The mean population for financial years is now widely used in connexion with rates for those statistics which are tabulated over a financial year period. The following table shows the mean population for each State and Territory for the years ended 30th June, 1928 to 1938.

MEAN POPULATION, FINANCIAL YEARS, 1928 to 1938.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Year ended 30th June.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Nor. Terr.	Aust. Cap. Terr.	Australia.
1928 ..	2,432,731	1,741,432	877,753	568,746	399,777	214,074	4,557	7,912	6,246,982
1929 ..	2,484,071	1,761,212	891,435	572,028	414,489	216,411	4,369	8,419	6,352,434
1930 ..	2,518,553	1,778,761	903,703	575,577	425,785	219,269	4,762	8,830	6,432,240
1931 ..	2,544,691	1,792,802	917,830	571,383	431,022	222,820	5,011	8,877	6,497,436
1932 ..	2,567,639	1,804,014	930,456	576,893	433,596	226,045	4,932	8,901	6,552,536
1933 ..	2,590,840	1,814,797	940,628	579,422	436,798	227,927	4,867	8,740	6,604,019
1934 ..	2,613,063	1,821,043	950,351	582,394	440,363	229,041	4,883	(a) 9,294	6,654,332
1935 ..	2,634,353	1,836,438	960,859	584,162	443,160	229,148	5,020	(a) 9,276	6,702,416
1936 ..	2,656,512	1,843,070	972,190	586,197	447,855	230,374	5,164	(a) 9,525	6,750,896
1937 ..	2,680,730	1,852,071	981,117	588,300	451,890	232,208	5,320	(a) 10,000	6,804,030
1938 ..	2,708,833	1,861,074	995,333	590,722	457,210	235,048	5,540	(a) 10,458	6,864,218

(a) See footnote (c) to table on p. 317. The following are revised estimates:—1933-34, 9,382; 1934-35, 9,540; 1935-36, 9,966; 1936-37, 10,619; 1937-38, 11,180.

4. *Proportion of Area and Population, Masculinity and Density—States, 1937.*—A previous table showed the estimated number of persons on the 31st December, 1937, in each of the States and Territories. In the following table the percentages of the total

area and of the total population represented by each State or Territory are given, together with the masculinity and the density of population :—

AREA, POPULATION, MASCULINITY AND DENSITY, 1937.

State or Territory.	Percentage of Total Area.	Percentage of Estimated Population, 31st December, 1937.			Masculinity. (a)	Density. (b)
		Males.	Females.	Persons.		
	%	%	%	%	%	%
New South Wales ..	10.40	39.39	39.56	39.47	101.96	8.76
Victoria ..	2.96	26.45	27.73	27.08	97.64	21.16
Queensland ..	22.54	14.96	13.97	14.47	109.69	1.48
South Australia ..	12.78	8.51	8.71	8.61	100.01	1.56
Western Australia ..	32.81	6.95	6.36	6.66	111.81	0.47
Tasmania ..	0.88	3.48	3.48	3.48	102.33	9.12
Northern Territory ..	17.60	0.10	0.05	0.08	212.55	0.01
Australian Capital Territory	0.03	0.16	0.14	0.15	117.76	10.90
Australia ..	100.00	100.00	100.00	100.00	102.39	2.31

(a) Number of males to each 100 females.

(b) Number of persons per square mile.

Additional information regarding masculinity and density of population appears in later sections of this chapter.

5. **Urban and Rural Distribution.**—At the Census of 30th June, 1933, information was obtained regarding the distribution of the population amongst urban and rural areas. The metropolitan division of each State includes the capital city and the adjoining urban municipal areas; the urban provincial districts in all States excepting Tasmania were taken for Census purposes as being those cities and towns which are not adjacent to the metropolitan areas, and which are incorporated for local government purposes; the rural area comprises the remainder of the State whether incorporated or not incorporated; while those persons classed as migratory were on board ships in Australian ports or were travelling on long-distance trains throughout Census night.

The results obtained at the Census for each State and Territory are shown in the following table :—

URBAN AND RURAL POPULATION. CENSUS, 30th JUNE, 1933.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Division.	Males.	Females.	Persons.	Percentage of Total Population of State.		Percentage Increase since the 1921 Census.
				Census, 1921.	Census, 1933.	
NEW SOUTH WALES.						
Urban—				%	%	%
Metropolitan	591,104	644,163	1,235,267	42.80	47.50	37.40
Provincial ..	283,439	282,001	565,440	25.00	21.74	7.70
Rural ..	439,486	355,615	795,101	31.64	30.57	19.64
Migratory ..	4,442	597	5,039	0.56	0.19	—56.99
Total ..	1,318,471	1,282,376	2,600,847	100.00	100.00	23.83

NOTE.—Minus sign (—) denotes decrease.

URBAN AND RURAL POPULATION, ETC.—*continued.*

Division.	Males.	Females.	Persons.	Percentage of Total Population of State.		Percentage Increase since the 1921 Census.
				Census, 1921.	Census, 1933.	

VICTORIA.

Urban—						
Metropolitan	464,775	527,159	991,934	50.05	54.49	29.42
Provincial ..	94,790	103,401	198,191	12.24	10.89	5.71
Rural ..	342,233	286,325	628,558	37.33	34.53	9.97
Migratory ..	1,446	132	1,578	0.38	0.09	-72.55
Total ..	903,244	917,017	1,820,261	100.00	100.00	18.87

QUEENSLAND.

Urban—						
Metropolitan	143,525	156,223	299,748	27.77	31.63	42.77
Provincial ..	97,853	101,291	199,144	24.30	21.02	8.40
Rural ..	252,357	192,232	444,589	47.49	46.92	23.84
Migratory ..	3,482	571	4,053	0.44	0.43	23.12
Total ..	497,217	450,317	947,534	100.00	100.00	25.34

SOUTH AUSTRALIA.

Urban—						
Metropolitan	147,936	164,683	312,619	51.57	53.81	22.42
Provincial ..	25,290	26,166	51,456	8.41	8.86	23.58
Rural ..	115,909	98,853	214,762	39.39	30.97	10.10
Migratory ..	1,827	285	2,112	0.63	0.36	-31.74
Total ..	290,962	289,987	580,949	100.00	100.00	17.33

WESTERN AUSTRALIA.

Urban—				%	%	%
Metropolitan	99,288	108,152	207,440	46.55	47.27	33.94
Provincial ..	23,060	21,745	44,805	12.79	10.21	5.25
Rural ..	108,732	74,077	183,409	39.10	41.79	40.98
Migratory ..	2,857	341	3,198	1.56	0.73	-38.38
Total ..	233,937	204,915	438,852	100.00	100.00	31.89

NOTE.—Minus sign (—) denotes decrease.

URBAN AND RURAL POPULATION, ETC.—*continued.*

Division.	Males.	Females.	Persons..	Percentage of Total Population of State.		Percentage Increase since the 1921 Census.
				Census, 1921.	Census, 1933.	
TASMANIA.						
Urban—						
Metropolitan	28,351	32,055	60,406	24.49	26.54	15.36
Provincial ..	26,971	29,806	56,777	26.03	24.95	2.04
Rural ..	59,138	50,629	109,767	49.17	48.23	4.42
Migratory ..	637	12	649	0.31	0.28	—0.46
Total ..	115,097	112,502	227,599	100.00	100.00	6.46

NORTHERN TERRITORY.

Urban—						
Provincial ..	912	654	1,566	36.18	32.29	11.94
Rural ..	2,391	818	3,209	62.14	66.16	33.54
Migratory ..	75	..	75	1.68	1.55	15.38
Total ..	3,378	1,472	4,850	100.00	100.00	25.42

AUSTRALIAN CAPITAL TERRITORY.

Urban—						
Provincial ..	3,839	3,486	7,325	..	81.87	..
Rural ..	966	656	1,622	99.65	18.13	..
Migratory ..	..	..	..	0.35	..	..
Total ..	4,805	4,142	8,947	100.00	100.00	247.86

AUSTRALIA.

Urban—						
Metropolitan	1,474,979	1,632,435	3,107,414	43.01	46.87	32.90
Provincial ..	556,154	568,550	1,124,704	19.09	16.97	8.41
Rural ..	1,321,212	1,059,805	2,381,017	37.35	35.91	17.27
Migratory ..	14,766	1,938	16,704	0.55	0.25	-43.88
Total ..	3,367,111	3,262,728	6,629,839	100.00	100.00	21.97

NOTE.—Minus sign (—) denotes decrease.

At the 30th June, 1933, the metropolitan divisions contained 46.87 per cent. of the total population of Australia as compared with 43.01 per cent. at the Census of 1921. Victoria had the largest percentage of population residing in the metropolitan area (54.49) but was closely followed in this respect by South Australia (53.81). During the intercensal period, however, the highest rates of increase in metropolitan population were experienced in Queensland and New South Wales.

The percentage of population in the rural divisions of Australia declined from 37.35 per cent. in the year 1921 to 35.91 per cent. on the 30th June, 1933. Tasmania, with 48.23 per cent., had the largest proportion of population residing in the rural sections of the State and Queensland was next with 46.92 per cent. Since the Census of 1921, however, the greatest percentage of increase in rural population occurred in Western Australia (40.93 per cent.), which was more than double the average rate of increase for rural areas in Australia.

A feature of the metropolitan population is its high femininity. In 1921, 52.3 per cent. of the metropolitan population was composed of females, and in 1933 the proportion had risen slightly to 52.5 per cent., the proportion being highest in Victoria and Tasmania at 53.1 per cent.

6. Metropolitan Population—Australia and Other Countries. —In Australia there is an abnormal concentration of population in the capital cities, which are the only ones of outstanding importance in the various States. A comparison with the capitals of the more important countries is given in the following table :—

METROPOLITAN POPULATION.—AUSTRALIA AND OTHER COUNTRIES.

State or Country.	Metropolis.	Year.	Metropolitan Population.
New South Wales	Sydney	1937	1,279,080
Victoria	Melbourne	"	1,024,000
Queensland	Brisbane	"	318,430
South Australia	Adelaide	"	318,190
Western Australia	Perth	"	215,700
Tasmania	Hobart	"	62,450
England	London (a)	"	8,655,000
Scotland	Edinburgh	"	408,500
Northern Ireland	Belfast	"	438,112
Ireland (Eire)	Dublin	1936	467,691
South Africa	Capetown (b)	"	171,534
New Zealand	Wellington	1937	151,700
Belgium	Brussels	1936	905,312
Czechoslovakia	Prague	1934	911,290
Denmark	Copenhagen	1935	843,168
France	Paris	1936	2,829,746
Germany	Berlin	"	4,251,000
Greece	Athens	"	491,120
Hungary	Budapest	1937	1,059,131
Italy	Rome	"	1,247,165
Japan	Tokyo (c)	"	6,274,000
Netherlands	Amsterdam	1936	783,351
Norway	Oslo	1930	253,124
Portugal	Lisbon	1933	633,309
Russia (Soviet Union)	Moscow	1936	3,641,500
Spain	Madrid	1935	991,436
Sweden	Stockholm	1936	543,785
United States	New York (d)	1937	7,434,346

(a) Greater London.

(b) European population.

(c) Greater Tokyo.

(d) Principal City.

NOTE.—The population of Canberra in 1937 was 9,050.

7. **Principal Urban Areas.**—The following table gives the figures of the population of the principal urban incorporated areas in each State and Territory of Australia at the Census of 30th June, 1933 :—

**POPULATION OF PRINCIPAL URBAN INCORPORATED AREAS.—AUSTRALIA,
30th JUNE, 1933.**

City or Town.	Population.	City or Town.	Population.
New South Wales—		Queensland—continued.	
Sydney and Suburbs	1,235,267	Townsville	25,876
Newcastle and Suburbs	104,485	Ipswich	22,498
Broken Hill	26,925	Cairns	11,993
Goulburn	14,849	Bundaberg	11,466
Cessnock	14,385	Maryborough	11,415
Lithgow	13,444	Mackay	10,665
Lismore	11,762	Gympie	7,749
Wagga Wagga	11,631	Charters Towers	6,978
Wollongong	11,403	Warwick	6,664
Albury	10,543		
Bathurst	10,413		
Tamworth	9,913	South Australia—	
Orange	9,634	Adelaide and Suburbs	312,619
Fairfield	8,709	Port Pirie	11,677
Dubbo	8,344	Mount Gambler	5,542
West Maitland	8,191	Murray Bridge	3,651
Armidale	6,794	Port Augusta	3,270
Katoomba	6,445	Peterborough	3,059
Grafton	6,411	Port Lincoln	3,006
Liverpool	6,315		
Cabramatta and Canley Vale	6,107		
Parkes	5,846	Western Australia—	
Forbes	5,355	Perth and Suburbs	(a) 207,440
Glen Innes	5,352	Kalgoorlie and Suburbs	17,326
Inverell	5,305	Bunbury	5,140
Casino	5,287	Geraldton	4,984
Cowra	5,056	Northam	4,817
		Albany	4,076
		Collie	3,784
Victoria—			
Melbourne and Suburbs	991,934	Tasmania—	
Geelong and Suburbs	39,223	Hobart and Suburbs	60,406
Ballarat and Suburbs	37,411	Launceston and Suburbs	32,833
Bendigo and Suburbs	29,131	Devonport	5,151
Warrnambool	8,906	Queenstown	3,809
Mildura	6,617	Burnie	3,390
Hamilton	5,786	Ulverstone	2,701
Shepparton	5,698		
Maryborough	5,631		
Wonthaggi	5,593		
Horsham	5,273	Northern Territory—	
Castlemaine	5,221	Darwin	1,566
Queensland—		Australian Capital Territory—	
Brisbane and Suburbs	299,748	Canberra	7,325
Rockhampton	29,369		
Toowoomba	26,423		

(a) Includes the City of Fremantle, 25,221.

8. **Provincial Urban Areas.**—In paragraph 5 above the percentage of the total population of each State which is located in incorporated urban provincial areas is shown. In the following table, however, the aggregate population of all cities and towns, outside the metropolitan area of each State, with 2,000 and 3,000 or more inhabitants is shown, irrespective of whether such centres are incorporated separately or not. In addition, the percentage of the aggregate population of these cities and towns to the total population of the State at the Census of the 30th June, 1933, is stated :—

Cities and Towns outside Metropolitan Area with Population of—

State or Territory.	2,000 and over.			3,000 and over.		
	Number	Population.	Percentage of Population.	Number.	Population.	Percentage of Population.
			%			%
New South Wales ..	106	567,094	21.80	69	474,150	18.23
Victoria ..	51	266,355	14.63	29	212,686	11.68
Queensland ..	33	233,154	24.61	19	199,496	21.05
South Australia ..	9	37,207	6.40	6	30,205	5.19
Western Australia ..	9	42,572	9.70	7	37,697	8.59
Tasmania ..	6	44,512	19.55	4	39,971	17.56
Australian Capital Territory ..	1	7,325	81.87	1	7,325	81.87
Total ..	215	1,198,219	18.07	135	1,001,530	15.16

9. **Principal Cities in the World.**—The following table shows the population of the world's largest cities at the latest available dates :—

POPULATION OF THE WORLD'S LARGEST CITIES.

(Cities in the British Empire are printed in *Italics*.)

Country.	City.	Year.	City Population (ooo omitted).	Country.	City.	Year.	City Population (ooo omitted).
England ..	<i>London (a)</i>	1937	8,655	Spain ..	<i>Barcelona</i>	1935	1,037
U.S.A. ..	New York ..	1937	7,434	England ..	<i>Birmingham</i>	1937	1,030
Japan ..	Tokyo (b) ..	1937	6,274	Australia ..	<i>Melbourne ..</i>	1937	1,024
Germany ..	Berlin ..	1936	4,251	China ..	Nanking ..	1936	1,019
Russia ..	Moscow ..	1936	3,642	Canada ..	<i>Montreal ..</i>	1931	1,000
U.S.A. ..	Chicago ..	1934	3,491	Spain ..	Madrid ..	1935	991
China ..	Shanghai ..	1936	3,490	U.S.A. ..	Cleveland ..	1934	923
Japan ..	Osaka ..	1937	3,213	France ..	Marseilles ..	1936	914
France ..	Paris ..	1936	2,830	Japan ..	Kobe ..	1935	912
Russia ..	Leningrad ..	1936	2,740	Czechoslovakia	Prague ..	1934	911
Arg. Republic	Buenos Aires	1937	2,291	Italy ..	Naples ..	1937	907
U.S.A. ..	Philadelphia	1934	2,004	Belgium ..	Brussels ..	1936	905
Germany ..	Vienna ..	1936	1,836	China ..	Canton ..	1931	861
Brazil ..	Rio de Janeiro	1936	1,711	Denmark ..	Copenhagen	1935	843
China ..	Peiping ..	1936	1,556	U.S.A. ..	St. Louis ..	1934	842
U.S.A. ..	Detroit ..	1934	1,487	England ..	<i>Liverpool ..</i>	1937	836
India ..	<i>Calcutta (c)</i>	1937	1,486	U.S.A. ..	Baltimore ..	1934	834
Egypt ..	Cairo ..	1937	1,307	Canada ..	<i>Toronto ..</i>	1931	809
China ..	Tientsin ..	1936	1,292	China ..	Chengtu ..	1931	800
U.S.A. ..	Los Angeles	1934	1,283	U.S.A. ..	Boston ..	1934	795
Australia ..	<i>Sydney ..</i>	1937	1,279	Netherlands	Amsterdam	1936	783
Italy ..	Rome ..	1937	1,247	China ..	Hankow ..	1931	778
Poland ..	Warsaw ..	1936	1,233	Chile ..	Santiago ..	1933	771
Italy ..	Milan ..	1936	1,178	Germany ..	Cologne ..	1936	762
India ..	<i>Bombay ..</i>	1931	1,161	Germany ..	Munich ..	1936	756
Brazil ..	Sao Paulo ..	1936	1,120	England ..	<i>Manchester</i>	1937	737
Scotland ..	<i>Glasgow ..</i>	1937	1,120	Japan ..	Yokohama	1935	704
Germany ..	Hamburg ..	1936	1,097	Germany ..	Leipzig ..	1936	698
Japan ..	Nagoya ..	1935	1,083	U.S.A. ..	Pittsburgh	1934	686
Japan ..	Kyoto ..	1935	1,081	U.S.A. ..	San Francisco	1934	686
Mexico ..	Mexico City	1933	1,065	Uruguay ..	Montevideo	1937	683
Hungary ..	Budapest ..	1936	1,059	Egypt ..	Alexandria	1937	682

(a) Greater London.

(b) Greater Tokyo

(c) Including Howrah.

POPULATION OF THE WORLD'S LARGEST CITIES—*continued.*

(Cities in the British Empire are printed in Italics.)

Country.	City.	Year.	City Population (ooo omitted).	Country.	City.	Year.	City Population (ooo omitted).
Russia ..	Baku ..	1936	670	U.S.A. ..	Buffalo ..	1934	602
Siam ..	Bangkok ..	1937	681	U.S.A. ..	Milwaukee ..	1934	600
Italy ..	Turin ..	1937	672	Netherlands ..	Rotterdam ..	1936	599
Germany ..	Essen ..	1936	662	France ..	Lyons ..	1936	571
Hong Kong ..	<i>Hong Kong</i> ..	1936	660	Russia ..	Taschkent ..	1936	565
Poland ..	Lodz ..	1936	653	Germany ..	Frankfort on Main ..	1936	551
India ..	<i>Madras</i> ..	1931	647	Cuba ..	Havana ..	1935	550
Italy ..	Genoa ..	1937	646	Sweden ..	Stockholm ..	1936	544
Rumania ..	Bucharest ..	1937	643	Germany ..	Dortmund ..	1936	540
Germany ..	Dresden ..	1936	637	England ..	<i>Sheffield</i> ..	1936	518
Portugal ..	Lisbon ..	1933	633	China ..	Tsingtas ..	1931	515
China ..	Chungking ..	1931	635	Germany ..	Dusseldorf ..	1936	515
China ..	Wenchow ..	1931	631	Arg. Republic ..	Rosario .. (Santa Fe)	1937	510
Russia ..	Kharkov ..	1936	625	China ..	Hangchow ..	1931	507
Germany ..	Breslau ..	1936	625				
Russia ..	Kiev ..	1936	625				
China ..	Changsha ..	1931	607				

§ 5. Elements of Increase.

1. *Natural Increase.*—(i) *General.* The two factors which contribute to the growth of a population are the “natural increase” by excess of births over deaths, and the “net migration,” i.e., the excess of arrivals over departures. In earlier issues of the Official Year Book particulars of the natural increase from 1861 were given for each sex and State (See No. 22, page 899). In the following table particulars for each sex are given in States for each quinquennium from 1901 to 1935 and for the latest ten years. The natural increase for Australia from 1861 to 1937 inclusive was 4,398,173, consisting of 2,039,322 males and 2,358,851 females, and represented 76.88 per cent. of the total increase in population. During the present century the rate of natural increase grew until it reached the maximum rate of 17.44 per thousand of population in the year 1914, but it steadily declined after that year to 7.07 in 1934. The figure has risen to 8.00 per thousand in 1937 as the result of slight gains during each of the last three years. A graph showing the natural increase to the population of Australia from 1860 onwards appears on page 328 of this chapter.

POPULATION.—NATURAL INCREASE (a)—1901 to 1937.

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Australia.
MALES.									
1901-05..	51,179	34,332	16,628	12,149	8,283	7,955	-223	(b)	130,303
1906-10..	64,127	38,948	21,415	14,500	10,762	8,703	-264	(b)	158,191
1911-15..	77,070	46,160	27,497	18,673	12,730	9,386	-201	78	191,393
1916-20..	72,030	41,388	26,894	16,413	9,787	8,673	-125	75	175,135
1921-25..	80,860	49,254	28,941	16,721	10,284	8,543	-68	37	194,572
1926-30..	72,430	43,756	25,045	14,583	11,245	7,001	131	175	174,704
1931-35..	51,566	25,286	20,627	8,686	8,576	5,810	-93	270	120,728
1928 ..	15,505	8,421	5,499	3,045	2,264	1,263	-27	37	36,007
1929 ..	13,046	8,263	4,430	2,725	2,076	1,334	-25	56	31,905
1930 ..	14,507	8,548	5,255	2,491	2,479	1,419	-25	61	34,735
1931 ..	12,654	6,442	4,650	1,978	2,052	1,410	-25	64	29,225
1932 ..	11,010	5,078	4,272	1,721	1,817	1,179	-22	60	25,115
1933 ..	10,072	5,183	3,872	2,013	1,608	1,133	-13	42	23,910
1934 ..	8,931	4,245	4,010	1,519	1,127	1,116	13	42	21,277
1935 ..	8,899	4,338	3,823	1,455	1,672	972	-20	62	21,201
1936 ..	10,051	4,800	4,563	1,548	1,676	1,036	14	55	23,743
1937 ..	9,865	5,319	4,454	1,788	1,918	1,241	-4	78	24,659

(a) Excess of births over deaths. (b) Part of New South Wales prior to 1911.

NOTE.—Minus sign (—) denotes excess of deaths over births.

POPULATION.—NATURAL INCREASE (a)—continued.

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Australia.
FEMALES.									
1901-05..	59,163	39,831	22,910	12,701	11,468	8,627	28	(b)	154,128
1906-10..	71,207	42,629	26,048	14,754	13,354	8,522	33	(b)	170,037
1911-15..	87,074	50,258	33,463	19,318	16,262	9,604	62	78	216,119
1916-20..	81,799	42,886	32,273	16,825	13,185	8,821	135	72	195,990
1921-25..	89,438	49,685	34,280	17,595	13,839	8,837	127	82	213,892
1926-30..	80,733	44,417	31,128	15,407	14,406	6,893	129	203	193,313
1931-35..	60,300	28,216	26,036	9,228	12,352	5,953	156	280	142,521
1928 ..	16,629	8,369	6,308	3,216	2,800	1,296	39	36	38,693
1929 ..	15,043	8,624	5,747	2,901	3,045	1,287	13	58	36,718
1930 ..	16,386	8,620	6,229	2,642	2,947	1,419	19	71	38,333
1931 ..	13,797	6,857	5,658	2,213	2,816	1,295	27	61	32,724
1932 ..	12,542	5,581	5,282	1,843	2,433	1,290	28	62	29,061
1933 ..	11,801	5,753	4,924	1,983	2,477	1,228	26	51	28,242
1934 ..	10,930	4,935	5,158	1,537	2,298	1,009	41	61	25,909
1935 ..	11,230	5,090	5,014	1,652	2,329	1,131	34	45	26,525
1936 ..	11,766	5,305	5,599	1,899	2,573	1,158	39	59	28,398
1937 ..	12,307	5,709	5,702	1,950	2,626	1,375	40	87	29,670

PERSONS.

1901-05..	110,342	74,103	39,538	24,850	16,751	15,982	-195	(b)	284,431
1906-10..	135,424	81,577	47,403	29,254	24,116	17,225	-231	(b)	334,828
1911-15..	194,144	96,418	60,990	37,091	28,002	18,000	-130	150	407,512
1916-20..	153,820	84,274	59,107	33,238	22,972	17,494	10	147	371,131
1921-25..	170,208	93,930	63,230	34,310	24,123	17,380	50	119	408,404
1926-30..	153,103	88,173	56,773	29,990	25,751	13,894	-5	378	368,017
1931-35..	111,866	53,502	46,663	17,914	20,928	11,703	63	550	263,249
1928 ..	32,134	16,700	11,867	6,261	5,004	2,550	12	73	74,700
1929 ..	28,080	16,887	10,177	5,020	5,121	2,021	-12	114	68,023
1930 ..	30,803	17,108	11,484	5,133	5,420	2,838	-0	132	73,008
1931 ..	26,451	13,299	10,308	4,191	4,868	2,705	2	125	61,949
1932 ..	23,552	10,639	9,554	3,564	4,250	2,469	6	122	54,176
1933 ..	21,873	10,936	8,796	3,906	4,084	2,361	13	93	52,152
1934 ..	19,861	9,180	9,168	3,050	3,725	2,125	28	103	47,246
1935 ..	20,120	9,428	8,837	3,107	4,001	2,103	14	107	47,720
1936 ..	21,817	10,105	10,102	3,447	4,249	2,104	33	114	52,141
1937 ..	22,202	11,118	10,130	3,738	4,544	2,010	30	105	54,035

RATE OF NATURAL INCREASE (c)—PERSONS.

1901-05..	15.59	12.31	15.34	13.92	18.07	17.85	-8.8	(b)	14.00
1906-10..	17.25	13.11	16.99	15.44	18.54	18.37	-12.6	(b)	15.93
1911-15..	18.27	13.91	18.61	17.55	18.76	19.63	-7.6	13.71	17.05
1916-20..	15.60	11.05	16.74	14.51	14.56	17.40	0.43	12.43	14.57
1921-25..	15.47	12.32	15.87	13.28	13.00	10.44	3.13	0.84	14.34
1926-30..	12.51	10.10	12.84	10.58	12.03	12.85	-0.22	0.00	11.72
1931-35..	8.00	5.88	9.87	6.17	9.54	10.33	2.54	12.11	7.94
1928 ..	13.00	9.58	13.34	10.97	12.42	11.88	2.60	8.00	11.85
1929 ..	11.22	9.54	11.34	9.83	12.17	12.01	-2.00	13.35	10.73
1930 ..	12.20	9.01	12.02	8.95	12.05	12.85	-1.21	14.73	11.30
1931 ..	10.35	7.30	11.15	7.28	11.26	12.03	0.40	14.20	9.49
1932 ..	9.13	5.89	10.21	6.17	9.77	10.87	1.22	13.67	8.24
1933 ..	8.41	6.01	9.30	6.88	9.31	10.34	2.67	10.27	7.87
1934 ..	7.57	5.01	9.59	5.24	8.44	9.27	5.68	11.12	7.07
1935 ..	7.61	5.13	9.15	5.31	8.98	9.16	2.74	11.40	7.10
1936 ..	8.18	5.47	10.38	5.87	9.44	9.50	10.09	11.07	7.69
1937 ..	8.20	5.90	10.20	6.34	10.00	11.18	6.05	10.18	8.00

(a) Excess of births over deaths.

(b) Part of New South Wales prior to 1911.

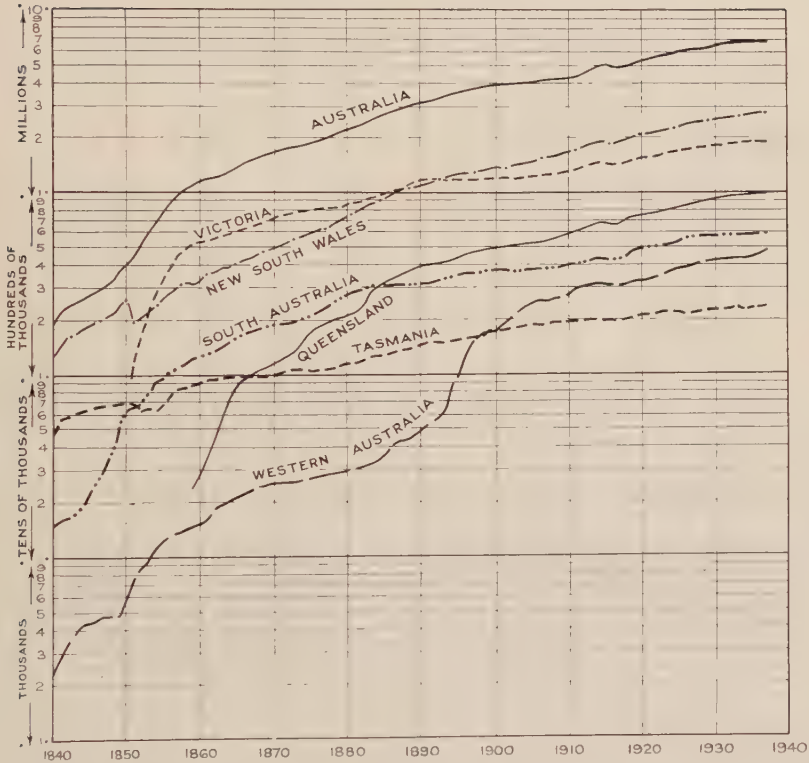
(c) Excess

of births over deaths per 1,000 mean annual population.

NOTE.—Minus sign (—) denotes excess

of deaths over births.

POPULATION OF AUSTRALIA, 1840 TO 1937 (RATIO GRAPH).

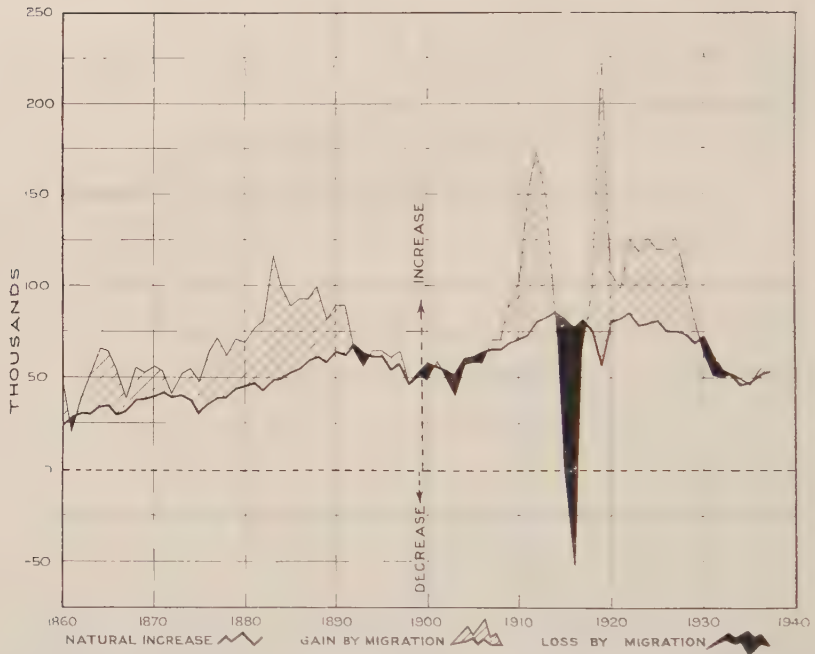


(See page 317.)

EXPLANATION.—This is a ratio graph, the vertical scale being logarithmic, and the curves rise and fall according to the rate of increase or decrease. Actual numbers are indicated by the scale at the side of the graph.

The curves represent the estimated population of each State at 31st December each year.

INCREASE OF POPULATION—AUSTRALIA, 1860 TO 1937



4 EXPLANATION.—The increase of population each year is represented by the distance between the light curve and the dotted zero line. The distance between the zero line and the heavy curve shows the amount of increase due to natural increase, while the distance between the two curves indicates gain or loss by migration, the shaded areas representing gains by migration and the black areas losses by migration. Where the black area extends below the dotted zero line, as it did during the years of the Great War, a net loss in population is indicated.

SYDNEY 1235267
 MELBOURNE 991934
 BRISBANE 299748
 ADELAIDE 312619
 PERTH 207440
 HOBART 60406
 CANBERRA 7325
 NEWCASTLE 104485

N.S. WALES 2600847
 VICTORIA 1820261
 QUEENSLAND 947534
 S. AUSTRALIA 580949
 W. AUSTRALIA 438852
 TASMANIA 227599
 A.C. TERRITORY 8947
 N. TERRITORY 4850

NORTHERN
 TERRITORY

QUEENSLAND

SOUTH
 AUSTRALIA

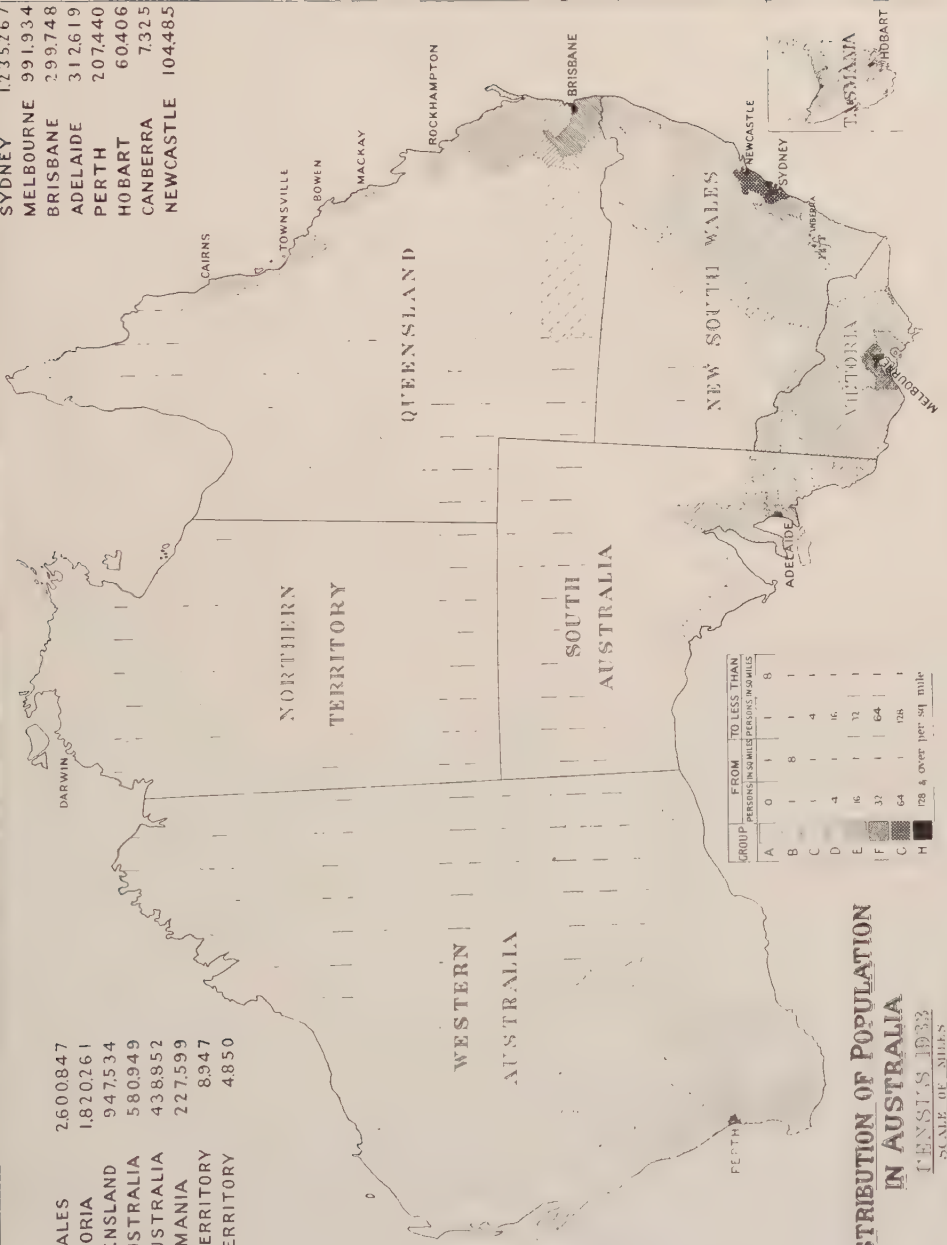
WESTERN
 AUSTRALIA

NEW SOUTH WALES

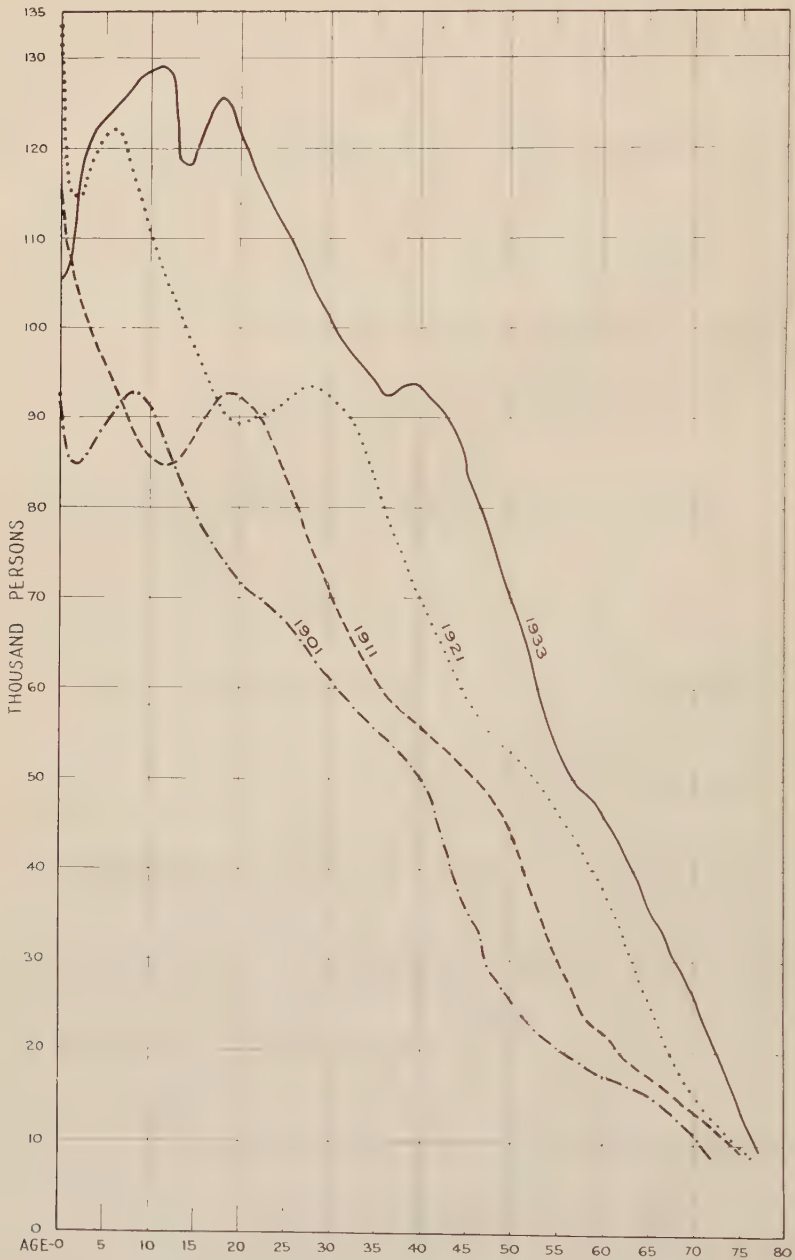
DISTRIBUTION OF POPULATION IN AUSTRALIA 1933

SCALE OF MILES

GROUP	FROM	TO LESS THAN
A	0	1
B	1	8
C	1	4
D	4	16
E	16	32
F	32	64
G	64	128
H	128	and over per sq. mile



AUSTRALIA—GRADUATED AGE DISTRIBUTION OF POPULATION. CENSUSES OF 1901
1911, 1921 AND 1933.



EXPLANATION.—This graph affords a comparison between the age distribution of the population at each of the last four censuses.

The above table shows the decline which has taken place in the rate of natural increase in all States of the Commonwealth during recent years, the rate for Australia in 1937 being less than half that computed for the peak year 1914, viz., 17.44. During the first five years of the present century the average increment to the population of Australia by this means was about 57,000 persons per annum. The increment rose to a maximum of 82,000 persons per annum in 1921-25, but thereafter fell to 53,000 persons per annum in the quinquennium 1931-35. The natural increase in each of the years 1934 and 1935 was only 47,000 but it rose to 54,635 in 1937, the highest figure recorded since the year 1931.

(ii) *Comparison with other Countries.* Notwithstanding its low birth-rate Australia has a higher rate of natural increase than most European Countries, owing to the fact that its death-rate is very low. The following table gives a comparison between the average rates per annum of natural increase during the latest five-yearly period for the several States of Australia and for the Dominion of New Zealand, with those of some of the principal countries for which such information is available. Corresponding annual rates for the period 1909-1913 have also been appended. Comparisons with the earlier period show, with one or two exceptions, that the fall in the rate of natural increase has been general throughout most countries of the world :—

NATURAL INCREASE PER ANNUM PER 1,000 OF MEAN POPULATION.

(VARIOUS COUNTRIES.)

Country.	1909-13.	1932-36.	Country.	1909-13.	1932-36.
Australasia—			Europe— <i>continued.</i>		
Tasmania ..	18.8	9.7	Scotland ..	10.7	4.7
Queensland ..	17.9	9.7	Norway ..	12.4	4.6
Western Australia	18.1	9.2	Switzerland ..	9.3	4.5
New South Wales	18.0	8.1	Belgium ..	7.8	3.3
New Zealand ..	17.1	7.9	England and Wales	10.7	2.8
Australia ..	16.7	7.6	Sweden ..	10.4	2.4
South Australia ..	16.8	5.9	France ..	0.8	0.5
Victoria ..	13.6	5.5			
Europe—			Asia—		
Russia ..	15.8	(a) 17.4	Japan ..	13.1	12.9
Netherlands ..	15.1	12.1			
Spain ..	9.3	(b) 10.8	Africa—		
Italy ..	12.8	9.5	Union of South		
Denmark ..	13.9	6.9	Africa (whites only)	(c)	14.2
Germany ..	12.8	5.9			
Northern Ireland ..	6.3	5.5	America—		
Ireland (Eire) ..	6.3	5.4	Canada ..	(c)	11.1
			United States ..	(c)	5.9

(a) 1926-30.

(b) 1931-35.

(c) Not available.

2. *Net Migration.**—The other factor of increase in the population, viz., the excess of arrivals over departures, known as “net migration” is, from its nature, much more subject to variations than is the factor of “natural increase”. These variations are due to numerous causes, some of which are referred to in Official Year Book No. 22, pp. 906-7.

* The subject of migration is dealt with at some length later in this chapter.

Particulars of the increase by net migration are given below for quinquennial periods from 1901 to 1935 and annually for the last ten years.

POPULATION.—INCREASE BY NET-MIGRATION.—1901 to 1937.

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Australia.
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MALES.

1901-05..	15,671	-37,971	1,215	-11,031	28,127	-1,771	- 697	(a)	-7,177
1906-10..	11,157	9,400	12,291	10,590	711	-5,784	- 366	(a)	37,999
1911-15..	38,483	1,568	13,037	-4,263	189	-9,599	1,050	- 90	40,375
1916-20..	23,150	18,205	3,614	7,920	-3,782	- 67	- 551	30	48,519
1921-25..	35,660	37,760	18,834	14,244	15,375	-5,630	17	1,199	117,459
1926-30..	37,524	7,849	11,584	-2,230	19,069	-3,668	870	2,259	73,257
1931-35..	- 1,646	-5,951	6,195	-3,654	-4,215	-1,384	- 24	3	-10,676
1928 ..	8,986	339	2,505	-2,709	6,957	- 526	- 311	1,311	16,552
1929 ..	3,941	-1,269	1,195	-3,767	4,213	160	290	10	4,773
1930 ..	- 3,329	-2,598	2,356	-2,470	- 972	- 158	123	65	-7,108
1931 ..	- 4,180	-2,435	1,723	-1,199	-2,523	261	- 112	95	-8,370
1932 ..	1,100	- 844	312	- 864	-1,165	- 288	- 87	- 391	-2,227
1933 ..	- 236	- 796	1,080	- 545	- 215	- 309	30	395	- 596
1934 ..	1,353	1,078	1,027	- 722	- 630	-1,055	83	- 111	1,023
1935 ..	317	-3,001	2,053	- 324	318	54	62	15	- 506
1936 ..	1,103	-1,206	1,230	- 391	- 201	- 181	100	227	681
1937 ..	3,147	-1,958	1,061	- 984	675	795	49	177	2,062

FEMALES.

1901-05..	1,566	-21,984	-2,398	-8,448	22,293	- 726	81	(a)	-9,616
1906-10..	9,390	10	7,780	4,403	1,867	-4,023	- 148	(a)	19,279
1911-15..	48,612	25,051	12,054	5,389	10,650	-5,658	271	118	96,487
1916-20..	21,294	985	2,770	3,863	-4,530	-2,211	47	- 34	22,190
1921-25..	24,660	19,443	12,154	7,482	6,700	-5,138	- 244	744	65,807
1926-30..	33,326	12,532	3,537	- 341	9,363	-4,293	278	2,048	56,450
1931-35..	1,093	2,943	1,125	-2,284	- 578	-2,644	88	47	- 210
1928 ..	8,354	2,785	180	- 595	2,703	- 865	- 43	983	13,502
1929 ..	4,531	905	- 113	-1,473	2,082	178	248	80	7,047
1930 ..	- 904	- 234	760	-1,169	519	- 661	62	205	-1,422
1931 ..	- 2,310	101	959	- 380	- 269	201	- 8	- 18	-1,724
1932 ..	765	2	- 495	- 486	- 451	- 38	21	- 88	- 770
1933 ..	151	952	58	- 67	75	- 549	- 11	201	810
1934 ..	1,470	2,753	271	- 717	- 749	-1,733	15	- 53	1,257
1935 ..	1,017	- 894	332	- 634	816	- 496	71	5	217
1936 ..	1,150	- 329	23	- 187	- 236	207	61	127	816
1937 ..	3,593	-1,266	110	- 805	335	251	- 36	119	2,241

(a) Part of New South Wales prior to 1911.

NOTE.—Minus sign (—) indicates the excess of

departures over arrivals.

POPULATION.—INCREASE BY NET MIGRATION—*continued*.

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Australia.
PERSONS.									
1901-05..	17,237	-59,955	-1,903	-19,479	50,420	-2,497	- 616	(a)	-16,793
1906-10..	20,547	9,410	20,071	14,993	2,578	-9,807	- 514	(a)	57,278
1911-15..	87,095	26,619	25,091	1,126	10,839	-15,257	1,321	28	136,862
1916-20..	44,444	19,190	6,390	11,783	-8,312	-2,278	- 504	- 4	70,709
1921-25..	60,320	57,203	30,988	21,726	22,081	-10,768	- 227	1,943	183,266
1926-30..	70,850	20,381	15,121	-2,571	28,432	-7,961	1,148	4,307	129,707
1931-35..	- 553	-3,008	7,320	-5,938	-4,793	-4,028	64	(b)50	-10,886
1928 ..	17,340	3,124	2,685	-3,304	9,660	-1,391	- 354	2,294	30,054
1929 ..	8,475	- 364	1,082	-5,240	6,895	338	538	96	11,820
1930 ..	- 4,233	-2,832	3,116	-3,639	- 453	- 819	190	140	-8,530
1931 ..	- 6,490	-2,334	2,682	-1,579	-2,792	462	- 120	77	-10,094
1932 ..	1,865	- 842	- 183	-1,350	-1,616	- 326	- 66	-479	-2,997
1933 ..	- 85	156	1,138	- 612	- 140	- 858	19	(b)596	214
1934 ..	2,823	3,831	1,298	-1,439	-1,379	-2,788	98	(b)-164	2,280
1935 ..	1,334	-3,895	2,385	- 958	1,134	- 442	133	(b)20	- 289
1936 ..	2,253	-1,535	1,253	- 578	- 437	26	161	(b)354	1,497
1937 ..	6,740	-3,224	1,171	-1,849	1,010	1,046	13	(b)296	5,203

(a) Part of New South Wales prior to 1911. (b) See footnote (c) to table on p. 317. The following are revised estimates:—1931-35, 492; 1933, 684; 1934, 13; 1935, 197; 1936, 531; 1937, 472.

NOTE.—Minus sign (-) indicates the excess of departures over arrivals.

From 1861 to 1937 the increment to the population arising from net migration amounted to 1,322,832 or 23.12 per cent. of the total increase in population. During the 37 years since 1900 the total increase to the population was made up of 2,514,408 or 82.04 per cent. by natural increase, and 556,843 or 17.96 per cent. by net migration.

There was a loss of population by migration in the first five years of the present century; in the subsequent twenty-five years the increase from migration averaged about 115,000 in each quinquennial period, but during the last seven years there was an annual average excess of departures of 4,186.

Rates of increase by migration from 1901 to 1937 may be found for each State and Territory of Australia in Australian Demography Bulletin, No. 55.

3. **Total Increase.**—The total increase of the population is obtained by the combination of the natural increase with the net migration.

The total increase in each decade from 1861 to 1920 was given in Year Book No. 22, p. 902. The total increment to the population from the beginning of the year 1861 to the end of the year 1937 was 5,721,005, while that from 1901 to 1937 was 3,101,251. The annual results for the last ten years are shown below, and quinquennial figures from 1901 to 1935 are also included. A graph showing the increase in the population of Australia from 1860 accompanies this chapter on page 327.

POPULATION.—TOTAL INCREASE—1901 to 1937.

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Australia.
MALES.									
1901-05..	66,850	-3,639	17,123	1,118	36,410	6,184	- 920	(a)	123,126
1906-10..	75,284	48,348	33,706	25,090	11,473	2,919	- 630	(a)	196,190
1911-15..	115,553	47,728	40,534	14,410	12,919	- 213	849	- 12	231,768
1916-20..	95,180	59,593	30,508	24,333	6,005	8,606	- 676	105	223,654
1921-25..	116,520	87,014	47,775	30,965	25,659	2,913	- 51	1,236	312,031
1926-30..	109,954	51,605	37,229	12,353	30,314	3,333	739	2,434	247,961
1931-35..	49,920	19,335	26,822	5,032	4,361	4,426	- 117	273	110,052
1928 ..	24,491	8,760	8,004	336	9,221	737	- 338	1,348	52,559
1929 ..	16,987	6,994	5,625	-1,042	6,289	1,494	265	66	36,678
1930 ..	11,178	5,950	7,611	21	1,507	1,261	103	- 4	27,627
1931 ..	8,474	4,007	6,373	779	- 471	1,671	- 137	159	20,855
1932 ..	12,110	4,234	4,584	857	652	891	- 109	- 331	22,888
1933 ..	9,836	4,387	4,952	1,468	1,393	824	17	437	23,314
1934 ..	10,284	5,323	5,037	797	797	61	70	- 69	22,300
1935 ..	9,216	1,337	5,876	1,131	1,990	1,026	42	77	20,695
1936 ..	11,154	3,594	5,793	1,157	1,475	855	114	282	24,424
1937 ..	13,012	3,361	5,515	804	2,593	2,036	45	255	27,621
FEMALES.									
1901-05..	60,729	17,847	20,512	4,253	33,761	7,301	109	(a)	144,512
1906-10..	80,687	42,639	33,828	19,157	15,221	4,499	- 115	(a)	195,916
1911-15..	135,686	75,309	45,517	24,707	26,912	3,946	333	196	312,606
1916-20..	103,093	43,871	35,049	20,688	8,655	6,610	182	38	218,186
1921-25..	114,098	69,128	46,443	25,077	20,545	3,699	- 117	826	279,699
1926-30..	114,059	56,949	34,665	15,066	23,769	2,600	404	2,251	249,763
1931-35..	61,393	31,159	27,161	6,944	11,774	3,309	244	327	142,311
1928 ..	24,983	11,154	6,488	2,621	5,503	431	- 4	1,019	52,195
1929 ..	19,577	9,529	5,634	1,428	5,727	1,465	261	144	43,765
1930 ..	15,482	8,386	6,989	1,473	3,406	758	81	276	36,911
1931 ..	11,487	6,958	6,617	1,833	2,547	1,496	19	43	31,000
1932 ..	13,307	5,583	4,787	1,357	1,982	1,252	49	- 26	28,291
1933 ..	11,952	6,705	4,982	1,916	2,551	679	15	252	29,052
1934 ..	12,400	7,688	5,429	820	1,549	- 724	56	8	27,226
1935 ..	12,247	4,196	5,346	1,018	3,145	635	105	50	26,742
1936 ..	12,916	4,976	5,622	1,712	2,337	1,365	100	186	29,214
1937 ..	15,990	4,533	5,812	1,085	2,961	1,626	4	206	32,217
PERSONS.									
1901-05..	127,579	14,208	37,635	5,371	70,171	13,485	- 811	(a)	267,638
1906-10..	155,971	90,987	67,534	44,247	26,694	7,418	- 745	(a)	392,106
1911-15..	251,239	123,037	86,051	39,117	39,831	3,733	1,182	184	544,374
1916-20..	198,273	103,464	65,557	45,021	14,660	15,216	- 494	143	441,840
1921-25..	230,618	156,142	94,218	56,042	46,204	6,612	- 168	2,062	591,730
1926-30..	224,013	108,554	71,804	27,419	54,083	5,933	1,143	4,685	497,724
1931-35..	111,313	50,494	53,983	11,976	16,135	7,735	127	(b)600	252,363
1928 ..	49,474	19,914	14,492	2,957	14,724	1,168	- 342	2,367	104,754
1929 ..	36,564	16,523	11,259	386	12,016	2,959	526	210	80,443
1930 ..	26,660	14,336	14,600	1,494	4,973	2,019	184	272	64,538
1931 ..	19,961	10,965	12,990	2,612	2,076	3,167	- 118	202	51,855
1932 ..	25,417	9,817	9,371	2,214	2,634	2,143	- 60	- 357	51,179
1933 ..	21,788	11,092	9,934	3,384	3,944	1,503	32	(b)689	52,366
1934 ..	22,684	13,011	10,460	1,617	2,346	- 663	126	(b)- 61	49,526
1935 ..	21,463	5,533	11,222	2,149	5,135	1,661	147	(b)127	47,437
1936 ..	24,070	8,570	11,415	2,269	3,812	2,220	214	(b)468	53,638
1937 ..	29,002	7,894	11,327	1,889	5,554	3,662	49	(b)461	59,838

(a) Part of New South Wales prior to 1911. (b) See footnote (c) to table on p. 317. The following are revised figures:—1931-35, 1,042; 1933, 777; 1934, 116; 1935, 304; 1936, 645; 1937, 637.

NOTE.—Minus sign (—) denotes decrease.

4. **Rates of Increase.**—(i) *States.* The annual rates of increase of population of the several States of the Commonwealth in each of the years 1933 to 1937 inclusive were as follows :—

POPULATION.—RATES OF INCREASE.

(AUSTRALIAN STATES.)

State or Territory.	Annual Rate of Increase of Population.				
	1933.	1934.	1935.	1936.	1937.
	%	%	%	%	%
New South Wales	0.84	0.87	0.81	0.91	1.08
Victoria	0.61	0.71	0.30	0.46	0.43
Queensland	1.06	1.10	1.17	1.18	1.15
South Australia	0.58	0.28	0.37	0.49	0.32
Western Australia	0.90	0.53	1.16	0.85	1.23
Tasmania	0.65	—0.29	0.72	0.95	1.56
Northern Territory	0.67	2.62	2.97	4.20	0.92
Australian Capital Territory (a)	8.05	—0.66	1.38	5.02	4.71
Australia	0.79	0.74	0.71	0.79	0.88

(a) See footnote (b) to preceding table. Corrected rates are as follows: 1933, 9.07; 1934, 1.24; 1935, 3.21; 1936, 6.61; 1937, 6.12.

NOTE.—Minus sign (—) denotes decrease.

(ii) *Various Countries.* The table hereunder gives approximate rates of increase of the population of Australia and its component States, in comparison with those for other countries.

POPULATION.—RATES OF INCREASE.

(VARIOUS COUNTRIES.)

Country.	Annual Rate of Increase of Population during period—						
	1901 to 1906.	1906 to 1911.	1911 to 1916.	1916 to 1921.	1921 to 1926.	1926 to 1931.	1931 to 1936.
	%	%	%	%	%	%	%
AUSTRALASIA—							
Australia	1.38	2.04	1.87	2.07	2.11	1.50	0.76
New South Wales (a) ..	1.99	2.05	2.61	2.19	2.20	1.74	0.87
Victoria	0.17	1.70	1.38	1.68	2.00	1.18	0.53
Queensland	1.35	2.77	2.18	2.17	2.38	1.53	1.14
South Australia (b) ..	0.27	2.48	1.47	2.33	2.17	0.81	0.41
Western Australia	6.22	2.42	1.77	1.31	2.66	2.56	0.81
Tasmania	1.33	0.63	0.43	1.90	0.04	1.01	0.55
New Zealand	2.81	2.43	1.56	2.13	2.06	1.38	0.79
EUROPE—							
England and Wales	1.04	1.02	—0.84	1.81	0.64	0.44	0.42
Scotland	0.55	0.56	0.31	0.24	0.09	—0.21	0.50
Ireland (Eire)	—0.22	—0.06	—0.21	0.58	—0.60	—0.12	0.28
Belgium	1.26	0.69	0.53	—0.55	1.03	0.71	0.42
Denmark	1.12	1.26	1.20	2.13	1.01	0.67	0.84
France	0.15	0.06	—0.72	0.55	0.76	0.53	0.02
Germany	1.46	1.33	0.71	—1.60	0.37	0.55	0.58
Italy	0.52	0.80	1.16	0.22	0.91	0.31	0.63
Netherlands	1.53	1.22	1.72	1.16	1.53	1.06	1.26
Norway	0.51	0.73	1.01	1.14	0.65	0.42	0.46
Spain	0.52	0.87	0.66	0.82	0.65	0.89	1.46
Sweden	0.61	0.84	0.70	0.64	0.40	0.29	0.34
Switzerland	1.28	1.17	0.81	0.01	0.38	0.62	0.44
ASIA—							
Ceylon	1.62	1.20	1.71	1.28	2.30	1.18	1.34
Japan	1.29	1.08	1.42	0.37	1.42	1.48	0.77
AMERICA—							
Canada	2.99	2.99	2.20	1.81	1.33	1.97	1.23
United States	2.00	1.82	1.67	1.21	1.67	1.27	0.69

(a) Including Australian Capital Territory.

(b) Including Northern Territory.

NOTE.—Minus sign (—) denotes decrease.

(iii) *Variations in the rates.* The annual rate of increase of the population during the present century has averaged 1.63 per cent., but the results from year to year have deviated widely from this figure. In the following table the period from 1900 to 1937 has been arranged into certain defined groups of years according to the occurrence of influences seriously affecting the growth of population :—

POPULATION.—RATES OF INCREASE.

(VARIOUS PERIODS.)

Period from 31st December.	Interval.	Increase during Period.	Average Annual Increase.	Average Annual Rate of Increase.		
				Natural Increase.	Net Migration.	Total.
	Years.	Million.	Thousand.	%	%	%
1900 to 1913 ..	13	1.13	87	1.59	0.53	2.04
1913 to 1923 ..	10	0.86	86	1.50	0.15	1.64
1923 to 1929 ..	6	0.68	113	1.27	0.64	1.88
1929 to 1937 ..	8	0.43	54	0.83	-0.02	0.81

NOTE.—Minus sign (—) denotes decrease.

Up to 1913 the rate of natural increase was rising, and this factor, coupled with the impetus given to immigration in the years immediately before the war, was responsible for the comparatively high annual rate of 2.04 per cent. during the pre-war years. The war was a dominating influence in the decade 1913-1923, and its effects can be seen in the reduction of the rate from 2.04 to 1.64 per cent. In the next span from 1923 to 1929 a more settled and prosperous era was experienced; migration was resumed on a large scale and, despite a further decline in the rate of natural increase owing to the persistent fall in the birth rate since the war, the annual rate of growth rose to 1.88 per cent. After 1929 came the depression; immigration ceased, in fact Australia actually lost 12,716 people through an excess of departures over arrivals from 1929 to 1937, although in the last two years small gains were recorded. With so much unemployment the rate of natural increase fell, and the population of Australia progressed at the low rate of 0.8 per cent. per annum.

If the population increased at the average rate of the present century, viz., 1.63 per cent., it would double itself in 42 years. It has been estimated, however, on the assumptions that the present birth and death rates remain unchanged and that no increment to the population results from migration, that the annual rates of natural increase would be for the period 1933-43, 0.64 per cent.; 1933-53, 0.55 per cent.; 1933-63, 0.45 per cent. and 1933-73, 0.33 per cent. In this respect the experience in Australia would be very similar to that of many other countries as the result of the low birth-rate.

Rates of increase from 1901 to 1937 may be found for each State and Territory of Australia in Australian Demography Bulletin, No. 55.

§ 6. Seasonal Variations of Population.

1. *Variations in Natural Increase.*—The following notes are based on the experience of the ten years 1928-1937. For Australia as a whole the rate of natural increase was greatest in the quarter ended March, and least in the quarter ended September. In New South Wales, Victoria, South Australia and Tasmania the March quarter was the most favourable, and in Queensland and Western Australia the June quarter. The natural increase was lowest in New South Wales, Victoria, Queensland, South Australia and Western Australia in the September quarter, and in Tasmania in the June quarter.

2. **Variations in Net Migration.**—For the decade 1928–1937 for Australia as a whole the quarter ended December showed the greatest rate of increase from migration. The greatest gains in New South Wales have on the average occurred in the September quarter, in Victoria in the March quarter, in Queensland and Western Australia in the June quarter, and in South Australia and Tasmania in the December quarter. The gain to the southern States in the quarter ended December is due to oversea traffic and to tourists and sugar workers returning from Queensland, which State loses heavily during the December quarter, but gains in the June quarter by tourists seeking the warmer climate. The increase to Tasmania during the quarter ended December is due to the influx of tourists from the mainland.

§ 7. Influences affecting Increase and Distribution.

In previous issues of the Official Year Book the influence of the various factors affecting the growth and distribution of population was traced. Detailed information on this subject will be found in Official Year Book No. 22, pp. 906 and 907.

§ 8. Density.

1. **General.**—From certain aspects population may be less significant in respect of its absolute amount than in its relation to the area of the country. Australia, with an area of 2,974,581 square miles, and a population on 31st December, 1937, of 6,919,425, including 52,835 full-blooded aborigines, has a density of only 2.33 persons to the square mile, and is, therefore, the most sparsely populated of the civilized countries of the world. For the other continents the densities are approximately as follows:—Europe, 120; Asia, 71; Africa, 14; North and Central America, 21; and South America, 12. The population of Australia has thus about one-sixth of the density of South America and of Africa; about one-ninth of that of North and Central America; about one-thirtieth of that of Asia; and about one fiftieth of that of Europe.

On account of the enormous area of Australia the density of population must necessarily increase slowly. In Australia as a whole the figure has increased from 1.29 per square mile in 1901 to 2.33 in 1937. Victoria's density, however, has grown from 13.77 to 21.16, and that of New South Wales from 4.43 to 8.76 in the same period.

A map showing the density of population throughout Australia at the Census of 1933 appears on page 329 of this chapter. When comparing the density of population of the several States consideration should be given to the average annual rainfall distribution in each State as an indication of the climatic influence upon probable population numbers. The area of New South Wales receiving less than 10 inches of rainfall is 16 per cent.; Victoria, nil; Queensland, 12 per cent.; South Australia, 82 per cent.; Western Australia, 50 per cent.; Tasmania, nil; and Australia, 36 per cent.

Particulars concerning the number and density of the population of the most important countries of the world at the 31st December, 1936, are given in the following table. These figures have been taken, with the exception of those for China, Afghanistan, and Australia, from the *Statistical Year Book of the League of Nations, 1937–38*. The figures for China and Afghanistan were taken from the *Statesman's Year Book, 1938*. In some instances, more particularly in the cases of Asia and Africa, the numbers must be considered as rough approximations only.

POPULATION OF THE WORLD.—NUMBER AND DENSITY.—1936.

Country.	Population. (ooo omitted).	Density. (a)	Country.	Population. (ooo omitted).	Density. (a)
EUROPE.			AFRICA.		
Russia (European) ..	138,500	59.8	Nigeria and Protectorate (c) ..	20,191	59.6
Germany	67,587	371.4	Egypt	15,515	40.2
Great Britain and North- ern Ireland	47,098	501.0	French West Africa	14,703	8.1
Italy	42,831	356.9	Belgian Congo	10,947	10.9
France	41,910	196.5	Union of South Africa	9,589	20.3
Poland	34,221	228.1	Algeria	7,235	8.4
Spain (including Canary and Balearic Islands) ..	25,050	129.1	French Morocco	6,296	37.9
Rumania	19,423	170.4	Anglo-Egyptian Sudan	5,946	6.1
Czechoslovakia	15,187	281.2	Abyssinia	5,500	15.8
Yugoslavia	15,174	158.1	Other	61,861	11.9
Hungary	8,989	249.7	Total Africa	156,883	14.1
Netherlands	8,557	658.2	NORTH AND CENTRAL AMERICA.		
Belgium	8,331	694.3	United States of America ..	128,429	41.1
Portugal	7,301	214.7	Mexico	18,852	24.8
Greece	6,933	138.7	Canada	11,028	3.0
Austria	6,758	211.2	Cuba	4,370	99.3
Sweden	6,267	362.3	Other	16,286	11.3
Bulgaria	6,254	156.4	Total North and Central America	178,965	20.6
Switzerland	4,174	260.9	SOUTH AMERICA.		
Denmark	3,722	218.0	Brazil	42,395	12.9
Finland	3,603	24.0	Argentine Republic	12,450	11.5
Ireland (Eire)	2,954	109.4	Colombia	8,760	19.5
Norway	2,895	23.2	Peru	7,000	14.5
Other	8,049	52.3	Chile	4,552	15.9
Total Europe	531,768	120.2	Other	12,968	9.1
ASIA.			Total South America	88,125	12.4
China and Dependencies ..	457,835	106.8	OCEANIA, ETC.		
British India :			Australia (d)	6,860	2.3
British Provinces	271,475	247.7	New Zealand	1,573	15.1
Feudatory States	81,311	114.2	Territory of New Guinea ..	670	7.2
Japan and Dependencies ..	101,230	386.4	Hawaii	392	56.0
Netherlands Indies	66,400	115.0	Papua	280	3.1
Russia in Asia	37,000	6.3	Fiji	201	28.7
French Indo-China	23,150	81.2	Other	532	2.9
Turkey, including Kurdi- stan (b)	15,200	53.3	Total Oceania, etc.	10,508	3.0
Iran	15,000	15.8	SUMMARY.		
Siam	13,599	68.0	Europe	531,768	120.2
Philippine Islands	13,350	117.1	Asia	1,145,054	71.1
Afghanistan	12,000	47.8	Africa	156,883	14.1
Arabia	7,000	7.0	America, North and Central ..	178,965	20.6
Nepal	5,600	103.7	America, South	88,125	12.4
Ceylon	5,678	227.1	Oceania, etc.	10,598	3.0
Other	19,226	47.6	Total	2,111,303	41.3
Total Asia	1,145,054	71.1			

(a) Number of persons per square mile. (b) Excludes European Territory—1,270,000.
 (c) Including British Cameroons. (d) Including 54,000 full-blood aboriginals.

2. Position of the British Empire.—The approximate relationship of the British Empire to the world as a whole in regard to its area and population is given hereunder :—

BRITISH EMPIRE IN RELATION TO THE WORLD.

Particulars.	The World. (a)	British Empire. (a)
Area in square miles (exclusive of Polar Circles) ..	51,147,000	13,355,426
Population	2,111,303,000	500,774,000
Population per square mile	41.28	37.50

(a) Statistical Year Book of the League of Nations, 1936-37, and The Statesman's Year Book, 1938.

§ 9. General Characteristics.

1. Sex Distribution.—(i) General. Detailed information respecting the distribution of the sexes in the population of Australia will be found in previous issues of the Official Year Book. (See No. 22, page 910.)

(ii) *Masculinity.*—(a) *States.* The number of males to each hundred females has been adopted as the "masculinity" of the population. On pages 163 to 165 in the second issue of this publication a table was included showing the masculinity of the population of each of the States for each year from 1796 to 1907. In the fifth issue, on page 123, the figures in this table for the years 1901 to 1907 were modified in accordance with the results of the Census of 3rd April, 1911.

With the exception of some dislocation arising from the war there has been a continuous diminution of the masculinity of the population. In 1900, the masculinity was 110.55; in 1910, 107.87 and in 1920, 102.47. After 1921, however, the masculinity tended to rise until 1927 (104.54) since when it has gradually fallen to 102.39 in the year 1937.

The following table shows the masculinity of the population at quinquennial periods from 1901 to 1935 and for the years 1936 and 1937:—

POPULATION.—MASCULINITY, 1901 to 1937.

(Males per 100 Females.)

As at 31st December—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Australia.
1901	110.12	101.16	125.78	102.71	155.69	107.90	593.32	..	110.15
1905	111.05	97.60	121.75	101.65	141.35	106.09	496.76	..	108.65
1910	109.23	98.71	119.02	103.12	132.90	104.14	486.32	(a)	107.87
1915	105.66	95.07	114.74	98.26	117.23	99.77	400.33	109.75	103.55
1920	104.31	97.38	112.00	99.83	114.55	101.67	270.04	116.70	103.47
1925	104.09	99.71	110.94	102.02	115.76	100.90	297.61	132.37	104.24
1930	103.39	99.14	110.66	100.97	117.17	101.53	263.66	118.69	103.85
1935	102.36	97.90	109.96	100.29	112.69	102.46	216.41	116.02	102.71
1936	102.21	97.77	109.88	100.10	112.15	101.95	210.42	117.49	102.55
1937	101.96	97.64	109.69	100.01	111.81	102.33	212.55	117.76	102.39

(a) Part of New South Wales prior to 1911.

(b) *Various Countries.* The difference between young and old countries in the masculinity of their populations is clearly illustrated by the comparisons furnished in the following table, which are based on the latest statistics available:—

POPULATION.—MASCULINITY.

(VARIOUS COUNTRIES.)

Country.	Year.	Number of Males to each 100 Females.	Country.	Year.	Number of Males to each 100 Females.
Argentine Republic ..	1928	114.1	Denmark	1937	97.2
Canada	1931	107.4	Hungary	1936	96.2
Ireland (Eire)	1936	105.0	Norway	1935	95.8
Union of South Africa (a)	1937	103.2	Spain	1930	95.3
New Zealand	1936	103.1	Northern Ireland ..	1937	95.0
United States of America	1930	102.5	Germany	1937	95.0
Australia	1937	102.4	Italy	1936	94.3
Japan	1936	101.8	Poland	1931	93.6
Netherlands	1935	99.2	Russia	1926	93.5
Belgium	1935	98.1	France	1935	93.2
Yugoslavia	1931	97.9	Scotland	1937	92.9
Sweden	1936	97.9	England and Wales	1937	92.4

(a) White population only.

2. *Age Distribution.*—The age distribution of the population is obtained only at a Census. The following table shows the variation which has taken place in the age constitution of the population during the 12½ years since the 1921 Census. There are regular wave-like movements in the increments to the numbers in the several age groups. These movements are due to the gradual decline in the birth-rate and to the age constitution of the net increment of immigrants during the intercensal period. The curve of age constitution for the 1921 Census showed definite troughs in the age group 0 to 4 years owing to the decline in the birth-rate during the war years, and in the age group 20 to 24 years due to the decline in the birth-rate in the late nineties of last century

and to the loss of young adult males during the war of 1914-1919. At the 1933 Census these same troughs are still prominent, but owing to the lapse of time they now show at the later ages of 12 to 16 years and 32 to 36 years. Another depression has appeared in the age group 0 to 4 years, which makes an even greater trough in the age constitution curve than that caused by the war. This was due to the serious decline in the birth-rate, which had been exaggerated by the economic depression. Marriages were postponed and births diminished.

Of the 6,629,839 persons enumerated at the 1933 Census, 8.6 per cent. were under 5 years of age; 9.5 per cent. were 5 years of age and under 10 years; 9.4 per cent. from 10 to 14 years; 9.3 per cent. 15 to 19 years; and 38.6 per cent. were under age 21. At the 1921 Census 11.0 per cent. were under 5 years; 11.0 per cent. 5 to 9 years; 9.7 per cent. 10 to 14 years; 8.6 per cent. 15 to 19 years; and 41.9 per cent. under 21 years of age.

The effect of the falling birth-rate on the number of young lives in the population is indicated by comparing the experience during the intercensal period from 1921 to 1933 with that for the previous intercensal period from 1911 to 1921. Whereas during the earlier period of ten years the population under 10 years of age in Australia increased by 213,822 persons, there was actually a decline of 693 in the numbers of this age-group during the subsequent 12½ years to 1933. Had the average effective birth-rate which prevailed between the Censuses of 1911 and 1921 continued until the 30th June, 1933, there would have been about 350,000 more children under 10 years of age in Australia than were actually enumerated at the Census.

On the other hand, the number of persons aged 65 years and over in Australia at the 30th June, 1933, was 188,630 more than at the previous Census, as compared with an increase of 48,813 during the previous intercensal period from 1911 to 1921.

POPULATION.—GRADUATED AGE DISTRIBUTION—AUSTRALIA, 1921 AND 1933.
(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Age last Birthday.	Census 1921.			Census 1933.			Increase 1921- 1933.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
Years.							
0-4	305,397	294,319	599,716	290,461	278,502	568,963	- 30,753
5-9	302,481	294,836	597,317	318,937	308,440	627,377	30,060
10-14	266,286	260,556	526,845	317,524	307,608	625,222	98,377
15-19	236,268	230,424	466,692	311,790	303,619	615,409	148,717
20-24	219,013	231,680	450,693	297,093	286,612	583,605	133,912
25-29	226,092	237,497	463,589	277,461	256,509	533,970	69,781
30-34	227,512	221,983	449,500	251,513	232,663	489,176	39,676
35-39	198,870	190,405	389,275	228,658	237,498	466,156	76,881
40-44	168,889	160,437	329,326	229,828	226,473	456,301	126,975
45-49	146,203	136,520	282,723	209,329	190,389	408,718	125,995
50-54	134,828	118,982	253,810	171,687	162,780	334,467	80,657
55-59	117,275	100,550	217,825	132,320	128,857	261,177	43,352
60-64	89,502	77,501	167,003	114,864	113,744	228,608	61,605
65-69	56,530	49,184	105,714	92,040	90,493	183,433	77,719
70-74	33,325	31,849	65,174	66,015	64,282	130,297	65,123
75-79	19,586	20,373	39,959	35,929	36,259	72,188	32,229
80-84	9,553	10,334	19,887	13,857	15,740	29,597	9,710
85-89	3,658	4,198	7,856	4,643	6,228	10,871	3,015
90-94	848	1,064	1,912	1,147	1,607	2,754	842
95-99	129	157	286	190	302	492	206
100-104	22	10	32	25	33	58	26
Total	2,762,870	2,672,864	5,435,734	3,367,111	3,262,728	6,629,839	1,194,105
Under 21 years	1,154,998	1,125,025	2,280,023	1,300,253	1,258,310	2,558,563	278,540
21 years and over	1,607,872	1,547,839	3,155,711	2,066,858	2,004,418	4,071,276	915,565
Total	2,762,870	2,672,864	5,435,734	3,367,111	3,262,728	6,629,839	1,194,105

NOTE.—Minus sign (—) denotes decrease.

As the recorded ages at a Census are not free from error the figures are subject to a process of graduation, and the graduated results have been substituted in this issue for the recorded ages previously shown.

Owing to the striking changes which are taking place in the age distribution of the population of Australia, consequent upon the lower birth rate and the increasing expectation of life, efforts have been made to estimate these particulars for later years by applying to the age distribution at the Census the subsequent experience of births, deaths and migration. The results of this tabulation are shown in the following summary.

POPULATION.—ESTIMATED AGE DISTRIBUTION—AUSTRALIA, 1934 TO 1937.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Age last Birthday.	30th June, 1934.		30th June, 1935.		30th June, 1936.		30th June, 1937.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Years—								
0-4 ..	280,866	269,181	272,290	261,762	268,604	258,078	271,798	261,786
5-9 ..	315,834	304,839	312,156	300,764	306,323	295,042	296,901	285,370
10-14 ..	322,551	312,768	324,220	315,117	322,813	313,558	320,041	310,971
15-19 ..	308,016	299,233	306,733	296,800	308,752	298,565	312,132	302,185
20-24 ..	302,455	292,778	306,682	298,374	309,556	302,177	310,736	303,273
25-29 ..	280,948	261,854	284,349	267,263	287,584	272,541	291,153	277,921
30-34 ..	255,857	238,788	260,247	240,920	264,936	244,385	269,366	248,587
35-39 ..	229,431	236,499	231,885	235,298	236,249	234,298	241,836	233,827
40-44 ..	229,080	229,023	229,054	231,003	226,846	232,251	224,075	232,716
45-49 ..	213,141	204,422	216,401	209,217	218,942	213,493	220,931	217,303
50-54 ..	178,124	168,858	184,242	174,711	189,319	180,689	194,760	186,610
55-59 ..	136,023	132,414	141,071	137,198	146,805	142,685	153,106	148,578
60-64 ..	111,883	111,779	111,585	115,447	115,018	116,357	116,005	117,697
65-69 ..	94,356	93,144	95,556	95,594	96,133	97,887	96,537	99,852
70-74 ..	66,995	66,366	68,218	68,414	69,322	70,515	70,616	72,752
75-79 ..	38,279	38,870	40,354	41,333	41,998	43,448	43,100	45,401
80-84 ..	14,447	16,123	15,334	17,399	16,574	18,721	18,004	20,239
85-89	4,655	6,323	4,657	6,380	4,687	6,446	4,739	6,524
90-94 ..	1,129	1,631	1,110	1,681	1,121	1,726	1,141	1,760
95-99 ..	188	279	172	255	163	214	141	197
100-104 ..	21	33	20	29	15	25	10	27
Total ..	3,387,901	3,288,496	3,409,336	3,314,968	3,432,260	3,343,101	3,457,788	3,373,576
Under 21 years ..	1,290,091	1,247,601	1,278,649	1,236,253	1,260,141	1,226,305	1,263,134	1,219,972
21 years and over ..	2,097,810	2,040,895	2,130,687	2,078,715	2,163,119	2,116,796	2,194,654	2,153,604
Total ..	3,387,901	3,288,496	3,409,336	3,314,968	3,432,260	3,343,101	3,457,788	3,373,576

The estimates in the above table have been revised since the previous issue, and are now based on the graduated results of the 1933 Census.

The next table shows the change which has been taking place in the age constitution of the population of Australia since the year 1871. Each successive Census except 1921 has revealed a larger percentage of the population over 15 years of age than was recorded at the previous Census. This movement, as previously mentioned, was greatly accentuated during the period 1921 to 1933 owing to the serious decline in the birth-rate which was partly the outcome of the economic depression. This change has resulted during the intercensal period in an increase in the average age of males in Australia from 28.54 to 30.44 years and of females from 28.20 to 30.02 years. Not only has there been an increase in the average age of both sexes but also a steady approach to similarity in the age composition of males and females in harmony with the equalization of the numbers of each sex in Australia.

POPULATION.—AGE DISTRIBUTION—AUSTRALIA, 1871 to 1933.

Census Year.	Males.				Females.				Persons.			
	Under 15 years.	15 and under 65.	65 and over.	Total.	Under 15 years.	15 and under 65.	65 and over.	Total.	Under 15 years.	15 and under 65.	65 and over.	Total.
	%	%	%	%	%	%	%	%	%	%	%	%
1871	38.84	59.11	2.05	100	46.02	52.60	1.38	100	42.09	56.17	1.74	100
1881	36.36	60.81	2.83	100	41.86	56.03	2.11	100	38.89	58.61	2.50	100
1891	34.80	62.01	3.19	100	39.38	58.09	2.53	100	36.92	60.19	2.89	100
1901	33.89	61.80	4.31	100	36.51	59.88	3.61	100	35.14	60.88	3.98	100
1911	30.84	64.82	4.34	100	32.52	63.28	4.20	100	31.65	64.08	4.27	100
1921	31.64	63.88	4.48	100	31.79	63.83	4.38	100	31.71	63.86	4.43	100
1933	27.53	66.09	6.38	100	27.42	65.99	6.59	100	27.48	66.04	6.48	100

3. **Conjugal Condition.**—Of the total population of Australia at the 1933 Census, 55.5 per cent. had never married; 39.2 per cent. were married; 5.0 per cent. widowed; and 0.3 per cent. divorced. Since the year 1921 the number never married has increased by 15.4 per cent.; those married by 29.8 per cent.; the widowed by 37.9 per cent.; and the divorced by 148 per cent.

The relatively low rate of increase in the number of single persons under age 15 is another symptom of the falling birth-rate. At the 30th June, 1933, the number of males aged 15 years and over who had never married was 193,139 more than the females and the excess of males was 40,721 greater than at the previous Census.

The marriage rate for Australia declined from 9.6 per 1,000 of population in the year 1920 to 7.0 per 1,000 of population in the year 1933. The divorce rate for the period 1911–1920 was 8.1 per 10,000 existing marriages, but increased to nearly double (15.5) during the decennium 1921–1930. During the intercensal period widowed females increased in number by 63,700, and at a higher percentage rate of increase (30.0) than the widowed males (33.3) during the same period. Actually there were more than twice as many widowed females as widowed males in Australia at the 30th June, 1933. The greater number of widowed females than widowed males is the result of two influences. The first is the greater longevity of married females coupled with the usually younger age at marriage; and the second is that a larger proportion of males cancel their widowhood by remarriage.

POPULATION.—CONJUGAL CONDITION—AUSTRALIA, 1921 AND 1933.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Conjugal Condition.		Census 1921.			Census 1933.			Increase 1921–1933.
		Males.	Females.	Persons.	Males.	Females.	Persons.	
Never Married—								
Under age 15	..	875,098	849,906	1,725,004	926,924	894,643	1,821,567	96,563
Age 15 and over	..	801,797	649,379	1,451,176	1,018,587	825,448	1,844,035	392,859
Total	..	1,676,895	1,499,285	3,176,180	1,945,511	1,720,091	3,665,602	489,422
Married	..	999,274	999,388	1,998,662	1,299,693	1,293,922	2,593,615	594,953
Widowed	..	73,341	164,480	237,821	97,775	230,180	327,955	90,134
Divorced	..	4,230	4,298	8,528	10,251	10,862	21,113	12,585
Not Stated	..	9,130	5,413	14,543	13,881	7,673	21,554	7,011
Total	..	2,762,870	2,672,864	5,435,734	3,367,111	3,262,728	6,629,839	1,194,105

4. **Dependent Children under 16 years of Age.**—In reply to this question, 804,695 males and 61,417 females stated they had children under 16 years of age dependent on them at the 30th June, 1933, the total number of dependent children under age 16 claimed being 1,919,859, of whom 1,811,247 or 94.3 per cent. were dependent on males and 108,612 or 5.7 per cent. were dependent on females. This represents an average of 2.3 for each male with dependent children and 1.8 for each female with dependent children. For each adult male in Australia there was an average of 0.88 dependent children, and for each male breadwinner (excluding pensioners) an average of 0.81 dependent children under 16 years of age.

Thirty-eight per cent. of the males with dependent children under 16 years of age had one dependent child; 29 per cent. two children; 16 per cent. three children; 9 per cent. four children; 4 per cent. five children; and 4 per cent. more than five children. Of the females with dependent children under 16 years of age, 57 per cent. had one dependent child; 24 per cent. two children; 11 per cent. three children; 5 per cent. four children; 2 per cent. five children; and 1 per cent. more than five children.

POPULATION.—PERSONS WITH DEPENDENT CHILDREN UNDER SIXTEEN YEARS OF AGE—AUSTRALIA, 1921 AND 1933.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Number of Dependent Children.	Number of Persons with Dependent Children.			Total Number of Children Dependent on—		
	Males.	Females.	Persons.	Males.	Females.	Persons.
1	306,695	34,823	341,518	306,695	34,823	341,518
2	233,167	14,631	247,798	466,334	29,262	495,596
3	131,646	6,724	138,370	394,938	20,172	415,110
4	69,485	3,067	72,552	277,940	12,268	290,208
5	34,676	1,337	36,013	173,380	6,685	180,065
6	17,270	557	17,827	103,620	3,342	106,962
7	7,497	185	7,682	52,479	1,295	53,774
8	2,931	75	3,006	23,448	600	24,048
9	964	15	979	8,676	135	8,811
10	281	3	284	2,810	30	2,840
11	69	..	69	759	..	759
12	14	..	14	168	..	168
Total ..	804,695	61,417	866,112	1,811,247	108,612	1,919,859

5. **Orphanhood.**—The number of children under 16 years of age in Australia at the 30th June, 1933, totalled 1,941,050, of whom 51 per cent. were males and 49 per cent. females. Of all children for whom particulars were stated, 04.0 per cent. had both parents living; 3.6 per cent. were without father living; 2.1 per cent. without mother; and 0.3 per cent. were bereft of both parents.

The number of fatherless children is much greater than the number without mothers. For every two children who are motherless there are approximately four who are fatherless. This is due to the higher rate of mortality amongst males of middle age as compared with females. The ratio of children without one or both parents to the total children enumerated is the same for both boys and girls.

**POPULATION.—ORPHANHOOD OF CHILDREN UNDER SIXTEEN YEARS OF AGE—
AUSTRALIA, 1921 AND 1933.**

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Particulars.	Males.	Females.	Persons.
Both Parents Living	915,707	884,174	1,799,881
Father Dead	34,642	33,998	68,640
Mother Dead	20,204	19,642	39,846
Both Parents Dead	3,144	2,713	5,857
Not Stated	13,813	13,013	26,826
Total	987,510	953,540	1,941,050

6. **Schooling.**—The total number of children at the ages 6 to 14 years inclusive in Australia at the 30th June, 1933, was 1,127,691. The number receiving instruction at Government schools at the date of the Census totalled 904,383, or 77 per cent.; those attending private schools numbered 224,994, or 19 per cent.; and 33,126 children or 3.0 per cent., were stated to be receiving instruction at home. Since the 1921 Census the number attending Government schools has increased by 14 per cent., while those attending private schools increased by 16 per cent.

**POPULATION.—SCHOOLING—PERSONS RECEIVING INSTRUCTION AT DATE OF
THE CENSUS—AUSTRALIA, 1921 AND 1933.**

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Receiving Instruction at—	Census 1921.			Census 1933.			Increase 1921— 1933.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
Government School	413,035	378,689	791,724	474,087	430,296	904,383	112,659
Private School ..	88,800	104,974	193,774	107,091	117,903	224,994	31,220
University ..	5,129	2,123	7,252	6,252	2,273	8,525	1,273
Home ..	14,141	16,571	30,712	16,623	16,503	33,126	2,414
Total ..	521,105	502,357	1,023,462	604,053	566,975	1,171,028	147,566

7. **War Service.**—This inquiry was restricted to those who served with the Australian Forces during the Great War of 1914–19. The numbers recorded at the Census of the 30th June, 1933, as having served abroad were 226,438 males and 1,844 females, 11 per cent. of the adult male population of Australia being ex-members of the Australian Forces with oversea service.

Of this number 4,339 served with the naval forces, so that the number of ex-members of the A.I.F. in Australia at the 30th June, 1933, was 222,099. According to official records, 265,000 members of the A.I.F. were discharged in Australia upon return from service overseas, but, as this figure included duplications for those persons who enlisted on more than one occasion and consequently were discharged on more than one occasion,

a special detailed examination of A.I.F. records at the Defence Department, Melbourne, was made in order to ascertain the number of individuals who were discharged upon return to Australia. This inquiry disclosed that 257,519 soldiers and 1,665 nurses returned to Australia and that 7,030 soldiers and nurses were discharged overseas. At the 1933 Census the number recorded in Australia totalled 222,099, which shows a reduction of 35,420, or 13.75 per cent., in the number of returned soldiers since their return to Australia.

The particulars ascertained from the 1933 Census and the results of the special statistical inquiry instituted at Base Records, Department of Defence, were referred to Mr. F. W. Barford, A.I.A., Actuary of the Commonwealth Superannuation Board. Although it was not possible from these data to construct a Life Table comparable to the Australian Life Tables of 1933 it was possible to make some comparison between the two experiences—national and returned soldiers. As the result of these calculations it was ascertained that the mortality amongst returned soldiers since discharge exceeds that of a body of males of the same age constitution drawn from the general population by about 13 per cent.

POPULATION.—WAR SERVICE—PERSONS WHO SERVED ABROAD WITH THE AUSTRALIAN FORCES IN THE WAR OF 1914-1919—CENSUS 1933.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

State or Territory.	Metro- politan.	Provincial.	Rural.	Migratory.	Total.
New South Wales	44,681	14,676	23,681	237	83,275
Victoria	38,116	6,098	23,273	102	67,589
Queensland	11,215	5,411	13,397	186	30,209
South Australia	11,953	1,484	6,658	73	20,168
Western Australia	8,995	1,662	8,482	87	19,226
Tasmania	2,286	1,619	2,959	43	6,907
Australian Capital Territory	..	541	64	..	605
Northern Territory	..	66	237	..	303
Total	117,246	31,557	78,751	728	228,282

8. Religion.—At the 1921 Census 92,258 persons in Australia, or 1.7 per cent., gave no reply to this question, but at the 1933 Census, when the public was informed there was no legal obligation to answer this question, 848,948 persons, or 12.8 per cent., gave no reply. Thus 14.0 per cent. of the male and 11.5 per cent. of the female population of Australia did not state their religion.

The greatest numerical increase during the intercensal period was recorded by the Church of England, followed by the Roman Catholic and Catholic undefined, which may be grouped without serious error as the latter term usually signified Roman Catholic. Then followed Presbyterian and Methodist. The greatest proportional increases, however, were recorded by the Christian Scientist, Greek Catholic and Seventh Day Adventist denominations, whilst the greatest proportional decreases were experienced by the Australian Church, Catholic Apostolic, Latter Day Saints and Congregational denominations.

Ninety-nine per cent. of those who stated their religion professed the Christian Faith as compared with 98 per cent. in the year 1921. For every 100 females

who declared they were adherents to some Christian denomination, there were 99 male adherents, as compared with 101 males at the previous Census. Since the previous Census the number who stated they were of non-Christian religion decreased by 20 per cent., and those specifically stating they had no religion decreased by 43 per cent. These comparisons with the 1921 figures, however, need to be interpreted with some care, in view of the fact that so large a proportion of the population gave no reply to this question at the 1933 Census.

POPULATION.—RELIGION—AUSTRALIA, 1921 AND 1933.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Religion.	Census 1921.			Census 1933			Increase, 1921- 1933.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
Christian—							
Baptist	49,194	56,509	105,703	49,654	56,220	105,874	171
Brethren	5,493	6,532	12,025	4,501	5,542	10,043	- 1,982
Catholic, Greek ..	3,938	1,434	5,372	8,435	3,176	11,611	6,539
Catholic, Roman ..	565,029	568,973	1,134,002	577,997	583,458	1,161,455	27,453
Catholic, undefined ..	20,082	18,577	38,659	63,861	63,681	127,542	88,883
Church of Christ ..	24,680	29,894	54,574	28,820	33,934	62,754	8,180
Church of England ..	1,212,772	1,160,223	2,372,995	1,297,589	1,267,529	2,565,118	192,123
Congregational ..	34,931	39,582	74,513	30,411	34,791	65,202	- 9,311
Lutheran	31,677	25,892	57,519	32,569	28,234	60,803	3,284
Methodist	306,785	325,844	632,629	331,602	352,420	684,022	51,393
Presbyterian	322,072	314,902	636,974	356,743	356,486	713,229	76,255
Protestant, undefined ..	37,309	29,803	67,112	37,750	35,014	72,764	5,652
Salvation Army ..	14,584	17,005	31,589	14,297	16,913	31,210	- 379
Seventh Day Adventist ..	4,640	6,665	11,305	5,992	7,973	13,965	2,660
Other	16,508	16,162	32,670	19,605	22,241	41,846	9,176
Total Christian ..	2,649,644	2,617,997	5,267,641	2,859,826	2,867,912	5,727,738	460,097
Non-Christian—							
Buddhist	1,945	120	2,065	640	95	735	- 1,330
Chinese	3,512	79	3,591	298	7	305	- 3,286
Confucian	2,536	156	2,692	772	15	787	- 1,905
Hebrew	11,392	10,223	21,615	12,183	11,370	23,553	1,938
Mohammedan	2,647	221	2,868	1,668	209	1,877	- 991
Other	1,896	678	2,574	865	348	1,213	- 1,361
Total Non-Christian ..	23,928	11,477	35,405	16,426	12,044	28,470	- 6,935
Indefinite	13,096	6,790	19,886	8,133	4,806	13,020	- 6,866
No Religion	10,022	4,222	14,244	8,969	3,085	12,054	8,810
No Reply	60,180	32,078	92,258	473,757	375,191	848,948	756,690
Total	2,762,870	2,672,864	5,435,734	3,367,111	3,262,728	6,629,839	1,194,105

NOTE.—Minus sign (—) denotes decrease.

9. Birthplace.—At the 1933 Census the native-born element of the population represented 86.3 per cent. as compared with 84.5 per cent. at the 1921 Census, the number of native-born having increased by 25 per cent., while the immigrant population increased by 7 per cent. only.

Although the number born in the British Isles increased by 39,055 or 5.8 per cent., they were equivalent to only 10.7 per cent. of the total population as compared with 12.4 per cent. at the previous Census. Those born in other European countries increased by 24,155, or 34.0 per cent., and represented 1.4 per cent. of the total population of Australia as compared with 1.3 per cent. in the year 1921. The number of Asiatic

birthplace decreased by 5,733, or 18.9 per cent., during the intercensal period, and was equivalent to only 0.4 per cent. of the total population as compared with 0.6 per cent. at the previous Census.

Of those not born in Australia, 57 per cent. were males and 43 per cent. females. Fifty-five per cent. of those born in the British Isles and 72 per cent. of those born in other European countries were males.

POPULATION.—BIRTHPLACES—AUSTRALIA, 1921 AND 1933.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Birthplace.	Census 1921.			Census 1933.			Increase, 1921- 1933.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
Australia	2,273,999	2,307,664	4,581,663	2,848,282	2,878,284	5,726,566	1,144,903
New Zealand	20,002	18,009	38,011	23,837	22,126	45,963	7,352
Other Australasian ..	315	209	524	468	306	774	250
Total Australasia ..	2,294,316	2,326,482	4,620,798	2,872,587	2,900,716	5,773,303	1,152,505
England	246,134	199,990	446,124	268,849	217,982	486,831	40,707
Wales	7,845	5,645	13,490	8,492	5,994	14,486	996
Scotland	60,419	48,337	108,756	73,488	59,001	132,489	23,733
Ireland	53,221	51,812	105,033	41,576	37,076	78,652	- 26,381
Germany	14,117	8,279	22,396	10,826	6,016	16,842	- 5,554
Greece	3,147	507	3,654	6,548	1,789	8,337	4,683
Italy	6,306	1,829	8,135	20,064	6,602	26,756	18,621
Other European	27,576	9,265	36,841	31,456	11,790	43,246	6,405
Total Europe	418,765	325,664	744,429	461,299	346,340	807,639	63,210
British India	4,976	1,942	6,918	4,544	2,230	6,774	- 144
China	14,859	365	15,224	8,072	507	8,579	- 6,645
Other Asiatic	6,541	1,609	8,150	6,690	2,516	9,206	1,056
Total Asia	26,376	3,916	30,292	19,306	5,253	24,559	- 5,733
South African Union ..	2,784	2,624	5,408	3,271	2,908	6,179	771
Other African	806	561	1,367	926	716	1,642	275
Total Africa	3,590	3,185	6,775	4,197	3,624	7,821	1,046
Canada	2,378	1,172	3,550	2,621	1,299	3,920	370
United States of America ..	4,134	2,470	6,604	3,569	2,497	6,066	- 538
Other American	1,195	723	1,918	995	628	1,593	- 325
Total America	7,707	4,365	12,072	7,185	4,424	11,579	- 493
Polynesia	1,991	1,177	3,168	1,583	1,395	2,987	- 281
At Sea	1,872	1,836	3,708	985	1,066	2,051	- 1,657
Not Stated	8,253	6,239	14,492	(a)	(a)	(a)	..
Total	2,762,870	2,672,864	5,435,734	3,367,111	3,262,728	6,629,839	1,194,105

NOTE.—Minus sign (—) denotes decrease.

(a) 11,165 persons (5,769 males, 5,396 females), whose birthplace was not stated were distributed after further analysis of other particulars on the Householders' Schedule.

10. **Period of Residence in Australia.**—The decline in immigration into Australia during recent years is reflected in the figures in this table. They show that, of residents not born in Australia who stated their period of residence, 6 per cent. had resided in Australia for a period of less than five years, and 25 per cent. for less than ten years, as compared with 11 per cent. and 35 per cent. respectively at the previous Census.

Fluctuations in immigration into Australia over a long period are also partially revealed by this table, which classifies the immigrant population of Australia according to the period of their residence in Australia. Those in the group 80—84 years represent the survivors in Australia of the arrivals during the gold rush of the fifties, while the heavy numbers in the 45-49 group are the survivors of those arriving during the boom period of the eighties. The particularly heavy immigration of the pre-war years, 1911-1913, is reflected in the outstanding number in the 20-24 years group, followed by the slump during the war period in the numbers in the 15-19 years group, and the increasing immigration after the war in the 10-14 and 5-9 years groups. The great reduction in immigration brought about by the economic depression is the cause of the relatively small numbers in the 0-4 years group. The 10,190 persons shown as having a period of residence of under 1 year are mostly the passengers and crews of oversea vessels which were in Australian waters on the night of the Census.

POPULATION.—IMMIGRANT—Period of Residence in Australia of Persons who were not born in Australia—AUSTRALIA, 1921 and 1933.
(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Number of Completed Years of Residence.	Census 1921.			Census 1933.			Increase, 1921- 1933.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
Years.							
0	28,386	19,827	48,213	7,407	2,783	10,190	- 38,023
1	8,375	16,998	25,373	2,133	1,856	3,989	- 21,384
2	2,026	2,400	4,516	2,243	2,277	4,520	4
3	1,715	1,404	3,119	5,633	5,411	11,094	7,975
4	2,779	2,623	5,402	10,761	9,121	19,882	14,480
0-4	43,281	43,342	86,623	28,227	21,448	49,675	- 36,948
5-9	111,895	87,723	199,618	104,664	68,661	173,325	- 26,293
10-14	58,919	31,883	90,802	66,084	56,685	122,769	31,967
15-19	15,077	7,818	22,895	26,987	26,098	53,085	30,190
20-24	18,875	8,000	27,805	113,600	77,711	190,774	162,909
25-29	16,873	10,721	27,594	23,203	10,938	34,141	6,547
30-34	47,206	32,273	79,479	10,473	8,331	24,804	- 54,675
35-39	56,144	38,272	94,416	11,187	6,304	17,491	- 76,925
40-44	31,843	20,851	52,694	22,110	17,196	39,306	- 13,388
45-49	16,616	11,776	28,392	36,670	28,297	64,967	36,575
50-54	10,954	9,649	20,603	27,147	20,486	47,633	27,030
55-59	13,077	12,912	25,989	11,412	9,432	20,844	- 5,145
60-64	10,372	11,671	22,043	5,739	5,427	11,166	10,877
65-69	11,378	13,594	24,972	3,751	4,424	8,175	- 16,797
70-74	2,875	3,669	6,544	2,937	3,673	6,610	66
75-79	716	935	1,651	2,672	4,050	6,722	5,071
80-84	519	693	1,212	1,246	1,926	3,172	1,960
85-89	78	124	202	113	167	280	78
90-94	16	15	31	26	44	70	39
95-99	I	..	I	3	5	8	7
100 and over	..	..	..	..	I	I	I
Not Stated	13,903	12,050	25,953	15,118	13,137	28,255	2,302
Total not born in Australia	480,618	358,061	839,579	518,829	384,444	903,273	63,694
Born in Australia ..	2,282,252	2,311,003	4,590,155	2,518,282	2,878,284	5,726,666	1,130,411
Total	2,762,870	2,672,864	5,435,734	3,367,111	3,262,728	6,629,839	1,194,105

NOTE.—Minus sign (—) denotes decrease.

11. Nationality.—The number of foreign nationals in Australia has increased since the 1921 Census by 32 per cent.—males by 25 per cent. and females by 71 per cent.—as compared with an increase of 22 per cent. in the number of British nationality. There has been little change, however, in the proportion of foreign nationals relative to the total population, 99.1 per cent. of the population being British subjects, as compared

with 99.2 per cent. at the previous Census. The greatest increases numerically among the foreign nationals were—Italian, 12,755; Greek, 2,835; Yugoslavian, 2,217; and Polish, 1,257; whilst those of Chinese nationality decreased by 6,007; Dutch by 702; and Japanese by 555.

The number of persons in Australia who were born in countries outside the British Empire totalled 113,557, and of this number 60,259, or 54 per cent., were of foreign nationality at the 30th June, 1933, the remainder being British subjects by naturalization, etc.

The percentages of foreign nationals to the numbers born in the corresponding foreign birthplaces were as follows:—Japanese nationals, 92 per cent. of the Japanese born; Chinese, 91 per cent.; Yugoslavian, 71 per cent.; Greek, 68 per cent.; Italian, 66 per cent.; Russian, 42 per cent.; United States of America, 42 per cent.; and German, 22 per cent.

POPULATION.—NATIONALITY (i.e., ALLEGIANCE)—AUSTRALIA, 1921 AND 1933.
(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Nationality.	Census 1921.			Census 1933.			Increase, 1921— 1933.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
British	2,722,152	2,665,053	5,387,205	3,318,228	3,251,290	6,569,518	1,182,313
Foreign—							
Chinese	13,614	185	13,799	7,615	177	7,792	— 6,007
Danish	956	260	1,216	1,046	233	1,279	63
Dutch	1,430	187	1,617	786	129	915	— 704
Estonian	(a)	(a)	(a)	515	323	838	(a) 838
Finnish	517	37	554	962	100	1,062	508
French	1,221	867	2,088	924	723	1,647	— 441
German	2,538	1,017	3,555	2,738	934	3,672	117
Greek	2,439	387	2,817	4,639	1,013	5,652	2,835
Italian	3,984	919	4,903	14,068	3,590	17,658	12,755
Japanese	2,489	150	2,639	1,937	147	2,084	— 555
Norwegian	960	65	1,025	1,150	88	1,238	213
Polish	351	149	500	1,008	749	1,757	1,257
Russian	1,655	662	2,317	1,283	772	2,055	— 262
Spanish	405	140	545	463	133	596	51
Swedish	1,390	80	1,470	1,274	96	1,370	— 100
Swiss	113	151	264	680	272	952	388
United States of America	2,520	737	3,257	1,904	653	2,557	— 700
Yugoslavian	502	107	609	2,503	323	2,826	2,217
Other	1,683	587	2,270	3,347	962	4,309	2,039
Total Foreign	39,067	6,687	45,754	48,842	11,417	60,259	14,505
Not Stated	1,651	1,124	2,775	41	21	62	— 2,713
Total	2,762,870	2,672,864	5,435,734	3,367,111	3,262,728	6,629,839	1,194,105

(a) Included with "Other" in 1921.

NOTE.—Minus sign (—) denotes decrease.

12. Race.—The people of Australia may be classified into two groups with respect to racial characteristics, viz., non-indigenous and indigenous. The former group comprises the European and other races who have migrated to Australia and their descendants born in Australia, while the latter group consists of the full-blood aboriginal natives of Australia whose estimated numbers at the 30th June, 1937, were 52,815 but who are not included in the general population figures of the Commonwealth. The non-indigenous population of Australia is fundamentally British in race and nationality. The Australian people have the essential characteristics of their British ancestors, with perhaps some accentuation of the desire for freedom from restraint. The complete change of climatic and social environment, the greater opportunity for an open-air life and the absence of the restricting conventions of older countries are exerting a noticeable influence upon the physical characteristics and social instincts of the people.

At the 30th June, 1933, 99.2 per cent. of the population of Australia was of European race and 0.8 per cent. of non-European as compared with 99.1 per cent. and 0.9 per cent. respectively at the 1921 Census. The non-European group is divided into two sections, viz., full-bloods who represented 46 per cent. of the total non-Europeans at the 1933 Census and 64 per cent. at the previous Census, and half-castes who accounted for 54 per cent. and 36 per cent. respectively.

During the intercensal period the number of full-blood non-Europeans decreased by 8,195 persons, or 26 per cent., and the number of half-castes increased by 9,450 persons, or 54 per cent. Of the latter the greatest proportion was half-caste Australian aboriginals, who increased in number by 9,084 persons, or 79 per cent. The half-caste population, i.e., persons having a mixture of European and non-European blood, was equivalent to 0.41 per cent. of the total population of Australia as compared with 0.32 per cent. in the year 1921.

POPULATION.—RACE—AUSTRALIA, 1921 AND 1933.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Race.	Census 1921.			Census 1933.			Increase, 1921— 1933.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
Full-blood— European	2,726,515	2,660,628	5,387,143	3,334,775	3,245,218	6,579,993	1,192,850
Non-European—							
Chinese	16,011	1,146	17,157	9,311	1,535	10,846	-6,311
Cingalese	231	38	269	196	78	274	5
Filipino	319	103	422	214	78	292	-130
Indian (a)	2,743	138	2,881	2,216	188	2,404	-477
Japanese	2,546	194	2,740	2,007	234	2,241	-499
Malay	986	101	1,087	813	156	969	-118
Papuan	142	21	163	221	18	239	76
Polynesian (other)	1,562	551	2,113	883	505	1,388	-725
Syrian	1,584	1,308	2,892	1,553	1,327	2,880	-12
Other	1,077	174	1,251	895	352	1,247	-4
Total Non-European Full-blood	27,201	3,774	30,975	18,309	4,471	22,780	-8,195
Half-caste—							
Australian Aboriginal ..	5,980	5,556	11,536	10,631	9,989	20,620	9,084
Chinese	1,891	1,778	3,669	1,901	1,602	3,503	-166
Indian (a)	366	329	695	360	334	694	-1
Japanese	97	91	188	116	109	225	37
Negro	108	72	180	119	89	208	28
Polynesian	184	165	349	218	216	434	85
Syrian	173	175	348	149	153	302	-46
Other	355	296	651	533	547	1,080	429
Total Half-caste	9,154	8,462	17,616	14,027	13,039	27,066	9,450
Total	2,762,870	2,672,864	5,435,734	3,367,111	3,262,728	6,629,839	1,194,105

(a) Native of India.

NOTE.—Minus sign (—) denotes decrease.

13. Foreign Language.—On the occasion of the 1933 Census, persons who could not read and write English but could read and write some foreign language were asked to state that language. This question had never appeared on the Census Schedule before and there is some doubt whether the question was correctly understood, as it appears that some persons who were able to read and write English and a foreign language also may have replied to this question incorrectly.

The recorded figures indicate that at the 1933 Census, 29,738 persons, comprising 23,638 males and 6,100 females, stated they were not able to read and write English, but were able to read and write a foreign language. 39 per cent. of this number were able to read and write Italian; 17 per cent. Chinese; 10 per cent. Greek; 5 per cent.

Yugoslavian; 4 per cent. Japanese; and 4 per cent. German. Included in the total are 1,014 persons who were passengers, or members of the crews, of oversea vessels in Australian waters on Census night.

Forty-three per cent. of the Italian-born population of Australia stated that they were unable to read and write English but were able to read and write Italian. Similarly, 59 per cent. of those born in China, 54 per cent. of the Japanese, 36 per cent. of the Yugoslavian, 37 per cent. of the Greeks, and 20 per cent. of those born in Malta stated that they were unable to read and write English but could read and write a foreign language.

Particulars were not obtained concerning the number, if any, of foreign born persons who could not read and write any language.

POPULATION.—IMMIGRANT—FOREIGN LANGUAGE—AUSTRALIA,
1921 AND 1933.

PERSONS NOT ABLE TO READ AND WRITE ENGLISH, BUT ABLE TO READ AND WRITE A
FOREIGN LANGUAGE.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Foreign Language.	Males.	Females.	Persons.
Albanian	428	1	429
Arabic	178	99	277
Bulgarian	144	21	165
Chinese	5,008	64	5,072
Croatian	128	19	147
Czechoslovakian	76	12	88
Danish	59	27	86
Estonian	35	29	64
Filipino	65	1	66
Finnish	233	49	282
French	105	130	235
German	598	466	1,064
Greek	2,185	906	3,091
Hebrew	134	203	337
Hindu	614	4	618
Italian	8,630	2,901	11,531
Japanese	1,142	76	1,218
Malayan	389	1	390
Maltese	445	119	564
Norwegian	124	5	129
Polish	102	124	226
Russian	278	302	580
Serbian	74	6	80
Spanish	277	93	370
Swedish	143	20	163
Syrian	93	67	160
Yugoslavian	1,158	263	1,421
Other	793	92	885
Total	23,638	6,100	29,738

14. Industry.—The following table shows the population of Australia classified according to the industry group in which they are usually engaged. The number of breadwinners in Australia at the 30th June, 1933, was 3,155,621, of whom 2,367,780 were males and 787,841 females. The term "breadwinner" generally includes persons

of all ages who are employers, working on own account, wage and salary earners, unemployed persons, pensioners, and those of independent means. Pensioners included in this number totalled 286,091. Excluding pensioners, the breadwinners numbered 2,869,530, comprising 2,239,677 males and 629,853 females. Owing to the change to an improved classification since the 1921 Census, in accordance with the recommendations of the Conference of Empire Statisticians, there has been some difficulty in making a strictly accurate comparison between the numbers engaged in each group at the Censuses of 1921 and 1933. The main divergence is that relating to the proportion of breadwinners to total population. This is the result of the exclusion of pensioners from the industry groups under the new classification.

At the 1921 Census pensioners were classified to their previous industry, or to the dependent or independent groups, whichever was stated. On this occasion, however, they were specifically directed to state if they were pensioners and they have been classed accordingly. These facts need to be borne in mind in considering the recorded changes to which attention is called below.

The proportion of breadwinners (including all pensioners shown) in the male population increased from 68.1 per cent. at the 1921 Census to 70.3 per cent. at the 1933 Census, and female breadwinners from 17.5 per cent. to 24.1 per cent. If pensioners are excluded, the proportion of breadwinners at the 1933 Census was as follows:—Males, 66.5 per cent. and females 19.3 per cent. Comparable figures for the year 1921 are not available.

Since the 1921 Census the total of male breadwinners, including pensioners, has increased by 25.8 per cent., and female breadwinners by 68.7 per cent. This increase in the number of female breadwinners is due in large measure to the increase in the stated number of old-age and invalid pensioners in 1933 as compared with the stated number in 1921. Excluding those who were not definitely stated to be associated with some occupation or industry, the number of breadwinners has increased by 17.9 per cent.—males by 15.4 per cent. and females by 27.9 per cent.

At the 1933 Census, as also at the previous Census, the "Industrial" group (factories, construction works, etc.) was the predominant group of industries and included 32.1 per cent. of the breadwinners in Australia (excluding those not definitely associated with industry) in 1933 as compared with 31.4 per cent. at the 1921 Census. The number of persons engaged in industrial occupations throughout Australia exceeded those in all primary industries by 209,120, or 32 per cent., as compared with 22 per cent. at the previous Census. The proportion of breadwinners engaged in the Agricultural, Pastoral and Dairying industries decreased from 21.0 per cent. at the 1921 Census to 20.3 per cent. in the year 1933.

During the intercensal period the aggregate increase in the number of males employed in each industry group was greater than that for females, with the exception of Personal and Domestic Service, and the Public Administration and Professional groups. The proportion of females to the total number of persons engaged in the various occupational groups has increased in the majority of groups, as follows:—Personal and Domestic Service from 76.2 per cent. in the year 1921 to 78.4 per cent. in the year 1933; Public Administration and Professional from 39.0 per cent. to 46.1 per cent.; Commerce and Finance to 24.9 per cent. (21.8); Entertainment, Sport and Recreation to 16.4 per cent. (13.0); Transport and Communication to 5.2 per cent. (3.5); and Agricultural, Pastoral, etc., to 3.6 per cent. (2.1). In the Industrial Group (factories, construction works, etc.), the numbers of persons engaged in the Building and Construction Sections—where the proportion of females is low—have increased more than in the factory group with the result that the proportion of females in the group has fallen from 16.7 per cent. to 15.9 per cent. Considered separately it will be seen that the proportion of females in the several sections has scarcely altered since 1921 so that the smaller proportion of females in the group as a whole is due to the altered values of the component

parts of the group. In all industry groups taken together the proportion of females to the total number of persons engaged has increased from 19.9 to 21.6 per cent.

POPULATION.—NUMBERS ENGAGED IN INDUSTRY—AUSTRALIA, 1921 AND 1933.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Industry Group.	Census 1921.			Census 1933.			Increase, 1921— 1933.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
Fishing and Trapping ..	10,671	81	10,752	14,570	41	14,611	3,859
Agricultural, Pastoral and Dairying ..	471,460	9,895	481,355	528,154	19,633	547,787	66,432
Forestry ..	30,101	80	30,280	26,010	114	26,133	4,147
Mining and Quarrying ..	66,524	242	66,766	68,327	193	68,520	1,754
Industrial—							
Manufacturing ..	326,847	118,727	445,574	375,431	136,077	511,511	65,937
Building ..	94,878	300	95,271	107,030	407	107,446	12,172
Roads, Earthworks, etc.	137,057	49	137,106	217,335	321	217,656	80,550
Other ..	39,126	726	39,852	28,584	974	29,558	10,294
Total Industrial ..	597,908	119,898	717,806	728,392	137,779	866,171	148,365
Transport and Communica- tion ..	200,523	7,214	207,737	212,161	11,732	223,893	16,156
Commerce and Finance ..	258,595	72,083	330,678	338,837	112,335	451,172	120,494
Public Administration and Professional ..	131,234	83,995	215,229	125,092	107,120	232,212	16,983
Entertainment, Sport and Recreation ..	15,517	2,313	17,830	20,278	3,972	24,250	6,420
Personal and Domestic Service ..	49,934	159,880	209,814	52,354	100,024	152,378	32,564
No Industry or Industry not stated ..	50,115	11,299	61,414	a 125,493	a 16,910	a 172,403	110,989
Pensioners ..	(b)	(b)	(b)	128,103	157,988	286,091	(b)
Total Breadwinners	1,882,672	466,980	2,349,661	2,367,780	787,841	3,155,621	805,060
Dependants ..	880,198	2,205,875	3,086,073	999,331	2,174,887	3,174,218	388,145
Total ..	2,762,870	2,672,864	5,435,734	3,367,111	3,262,728	6,629,839	1,194,105

(a) Includes unemployed persons for whom industry was not stated.
not available. NOTE.—Minus sign (—) denotes decrease.

(b) Comparable figure

15. *Grade of Employment.*—This table shows the population of Australia classified according to the capacity in which they are engaged in the various branches of industry. The number of employers at the 30th June, 1933, was 207,680, an increase of 48.7 per cent. over the number stated at the 1921 Census, but actually 2 per cent. less than the number of employers at the earlier 1911 Census. Those persons who were stated to be working on own account showed an increase of 7.9 per cent. since the 1921 Census.

Of the population of Australia at the 30th June, 1933, 2,099,548 persons or 31.7 per cent. were in the wage-earning group. This was slightly more than the percentage of 30.8 recorded at the previous Census. Since the 1921 Census the number of persons in the wage-earning group has increased by 26.3 per cent.—males increasing by 23.7 per cent., and females by 35.7 per cent.

The proportion of females to the total number of persons in the wage-earning group has increased from 22.6 per cent. in the year 1921 to 24.3 per cent. at the time of the 1933 Census.

Of the wage-earning group, 1,447,507 or 69.0 per cent. were in full-time employment at the date of the Census: 170,097 persons, or 8.1 per cent., were employed part-time (this number includes those who stated themselves to be on sustenance work or relief work); and 481,044, or 22.9 per cent., stated themselves to be unemployed.

POPULATION.—GRADE OF EMPLOYMENT—AUSTRALIA, 1921 AND 1933.
(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Grade.	Census 1921.			Census 1933.			Increase, 1921- 1933.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
Employer	129,142	10,481	139,623	186,849	20,831	207,680	68,057
Working on Own Account	296,291	46,030	342,321	318,951	50,424	369,375	27,054
Wage or Salary Earner				1,019,158	401,982	1,421,140	
Apprenticed							
Wage Earner	1,148,132	354,761	1,502,893	20,674	5,693	26,367	115,611
Employed Part Time				144,170	26,827	170,997	
Unemployed	137,675	21,405	159,080	405,269	75,775	481,044	321,964
Helper not receiving							
Salary or Wages ..	31,620	3,172	34,792	40,754	5,262	46,016	11,224
Grade not applicable (a)	994,590	2,229,653	3,224,243	1,226,806	2,674,756	3,901,562	677,319
Not Stated	25,420	7,362	32,782	4,480	1,178	5,658	-27,124
Total	2,762,870	2,672,864	5,435,734	3,367,111	3,262,728	6,629,839	1,194,105

(a) Includes pensioners, persons of private means not in business, females engaged in home duties, scholars and other dependants. NOTE.—Minus sign (—) denotes decrease.

16. **Unemployment.**—The number of persons who stated they were wholly unemployed at the 30th June, 1933, totalled 481,044, or 22.9 per cent. of the number of persons in the wage-earning group. Of those unemployed, 405,269 were males and 75,775 females, representing a percentage of unemployment of 25.5 for males and 14.8 for females respectively.

Corresponding percentages of unemployment from the 1921 Census results were males 10.7 per cent. and females 5.7 per cent. At the 1933 Census 15,061 males and 7,710 females who were unemployed and under 21 years of age stated they had never been in employment.

The percentage of males unemployed in Australia according to the Census returns (25.5 per cent.) was practically the same as the percentage of members of reporting Trade Unions in Australia who were unemployed (25.4), as shown by the returns supplied by the Unions to the Commonwealth Statistician for the second and third quarters of 1933.

Of the 481,044 persons unemployed, 453,487 stated the cause of their unemployment: 90.9 per cent was due to scarcity of employment; 5.6 per cent. to illness; 1.1 per cent. to accident; and 2.4 per cent. to all other causes. The proportion of wage-earners who were unemployed as the result of illness and accident had decreased since the 1921 Census from 2.7 per cent. to 1.4 per cent. for males, and from 2.6 per cent. to 1.7 per cent. for females.

POPULATION.—CAUSE OF UNEMPLOYMENT—AUSTRALIA, 1921 AND 1933.
(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Cause.	Census 1921.			Census 1933.			Increase, 1921- 1933.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
Scarcity of Employment ..	68,751	6,092	74,843	355,935	56,296	412,231	337,388
Illness	29,799	9,551	39,350	17,223	8,268	25,491	-13,859
Industrial Dispute	4,249	290	4,539	1,526	85	1,611	- 2,928
Accident	4,556	226	4,802	4,484	391	4,875	- 793
Other Causes	24,069	4,061	(a) 28,130	1,590	308	1,898	-26,232
Voluntarily (so described)	(c)	(c)	(c)	4,579	2,802	7,381	(c) 7,381
Not Stated	6,251	1,165	7,416	19,932	7,623	27,557	20,141
Total	137,675	21,405	159,080	405,269	75,775	481,044	321,964

(a) Many classified as "Other Causes" were due to "Scarcity of Employment". (b) Excluding Wage Earners stated to be employed part time or on Sustenance or Relief Work. (c) Not shown separately in 1921. NOTE.—Minus sign (—) denotes decrease.

Of those who stated the duration of their unemployment, 24.9 per cent. had been unemployed for less than 24 weeks; 14.1 per cent. between 24 weeks and 1 year; 13.9 per cent. between 1 and 2 years; 18.2 per cent. between 2 and 3 years; 18.9 per cent. between 3 and 4 years; and 10.0 per cent. for 4 years or longer. Sixty-four per cent. of the males unemployed and 43 per cent. of the females unemployed stated that a period of over one year had elapsed since they were last regularly employed.

POPULATION.—DURATION OF UNEMPLOYMENT—AUSTRALIA, 1921 AND 1933.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Duration of Unemployment.	Census 1921.			Census 1933.			Increase, 1921— 1933.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
Under 1 week	12,107	1,751	13,858	1,970	682	2,652	— 11,206
1 week	14,250	2,318	16,568	4,612	1,980	6,592	— 9,976
2 weeks	11,537	1,795	13,332	5,698	2,218	7,916	— 5,416
3	9,477	1,424	10,901	5,035	1,917	6,952	— 3,949
4 weeks and under 8 weeks	20,967	3,289	24,256	16,637	5,382	22,019	— 2,237
8	12,202	1,958	14,160	13,711	3,771	17,482	3,322
12	10,662	1,698	12,360	17,815	4,542	22,357	9,997
16				10,352	2,441	12,793	
20				7,007	1,512	8,519	
24				24,607	6,306	30,913	
28				6,289	1,171	7,460	
32				6,046	1,103	7,149	
36				7,240	1,213	8,453	
40				3,882	691	4,573	
44	25,802	3,695	29,497	113	10	123	316,360
48				2,170	358	2,528	
52							
Total under 1 year				133,184	35,297	168,481	
1 year and under 2 years				50,344	9,700	60,044	
2 years				69,848	8,667	78,515	
3				75,895	5,660	81,564	
4				40,607	2,616	43,223	
4 and over				35,391	13,826	49,217	25,069
Not Stated	20,671	3,477	24,148				
Total	137,675	21,405	159,080	405,269	75,775	481,044	321,964

(a) Excluding Wage Earners stated to be employed part time or on Sustenance or Relief Work.
NOTE.—Minus sign (—) denotes decrease.

17. **Income.**—The 1933 Census was the first occasion on which any question regarding income was placed on the Census Schedule in Australia. Its successful introduction in the New Zealand Census in the year 1926 inspired the hope that a similar inquiry could be successfully undertaken in Australia. Of the 3,155,621 breadwinners in Australia, 3,052,582 gave the required particulars concerning their income; only 1.6 per cent. of the male and 2.7 per cent. of the female breadwinners failed to furnish this information. The breadwinner group comprised 207,680 employers, 309,375 persons working on own account, 1,447,507 wage and salary earners, 170,997 persons employed only part-time, 481,044 unemployed, 46,016 helpers not receiving wages, and 433,002 persons who did not state their grade of employment or to whom this classification was not applicable. This latter section includes pensioners, independent and retired persons and males over age 16 for whom particulars as to occupation were not stated. In addition to breadwinners, 218,616 persons, comprising dependents and others who stated that the questions concerning occupation were not applicable to their circumstances, were in receipt of some income during the year ended 30th June, 1933. The Census figures have now been analysed separately for employers, those working on own account, wage and salary earners, those in part-time employment, unemployed persons and pensioners.

The following table shows the information concerning income supplied by persons in the breadwinner group, classified in conjunction with grade of occupation.

POPULATION.—INCOME—AUSTRALIA, CENSUS 1933.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Income.	Em- ployer.	Working on own Account.	Wage or Salary Earner.	Wage Earner employed Part- Time.	Unem- ployed.	Helper not receiving Wages.	Grade not applica- ble and not stated a	Total Bread- winners.
MALES.								
No Income (b)	5,942	16,894	..	..	175,662	40,754	50,043	280,295
Under £52 per annum ..	12,642	71,121	187,238	59,271	147,109	..	86,130	566,514
£52 to £103 per annum ..	22,498	80,372	168,491	44,746	47,228	..	21,720	385,055
£104 „ £155 „ „ ..	26,475	56,477	134,733	23,937	17,141	..	14,270	273,033
£156 „ £207 „ „ ..	23,878	33,058	184,764	9,572	6,388	..	7,989	265,649
£208 „ £259 „ „ ..	21,362	19,716	170,670	2,473	2,419	..	6,132	222,772
£260 or over „ „ ..	72,252	35,087	183,915	655	1,245	..	14,650	307,804
Not Stated	1,800	2,923	10,021	3,516	8,077	..	31,021	57,358
Total	186,849	318,951	1,039,832	144,170	405,269	40,754	231,955	2,367,780
FEMALES.								
No Income (b)	766	4,631	..	..	37,273	5,262	11,339	59,271
Under £52 per annum ..	2,579	17,039	145,483	17,247	27,958	..	98,383	308,689
£52 to £103 per annum ..	4,268	14,149	133,434	7,026	6,500	..	22,279	188,556
£104 „ £155 „ „ ..	3,531	6,638	77,756	998	1,278	..	12,452	102,653
£156 „ £207 „ „ ..	2,367	2,848	30,052	123	236	..	5,024	41,550
£208 „ £259 „ „ ..	1,778	1,529	10,201	32	40	..	3,928	17,508
£260 or over „ „ ..	5,139	2,044	5,613	24	32	..	11,081	23,933
Not Stated	403	1,546	5,136	477	2,458	..	35,661	45,681
Total	20,831	50,424	407,675	26,827	75,775	5,262	201,047	787,841
Total Breadwinners ..	207,680	369,375	1,447,507	170,997	481,044	46,016	433,002	3,155,621

(a) Includes pensioners, persons of private means not in business, females engaged in home duties, scholars and other dependants.

(b) Includes deficit.

§ 10. Dwellings.

1. Number of Dwellings.—The great majority of the questions on the Census Schedule related to the individual members of the household, but other important questions referred to the dwellings in which the people were living at the date of the Census. From the replies to these questions much valuable information has been tabulated concerning housing conditions. This subject is of the greatest importance in its bearing on the welfare of the people, and the results are of great utility for administrative and sociological purposes. For Census purposes a dwelling is the habitation of a family group, whether this comprises the whole of any building or only part thereof. Where two or more separate buildings in one place are used by a single family for dwelling purposes, the whole is regarded as one dwelling. On the other hand, where a building is subdivided into tenements or flats which are occupied as separate units, each unit is counted as a dwelling. A flat has been defined as a room or suite of rooms which was designed, or has been adapted, to be occupied as a separate domicile.

The Census definition of a dwelling includes private houses, tenements, flats, hotels, boarding houses, hospitals, other institutions and any other structure used for the purpose of human habitation. Of the total of 1,618,500 dwellings in Australia at the 30th June, 1933, 1,547,376 were occupied at the date of the Census; 68,772 were unoccupied; and in addition 2,352 were in course of construction.

Since the 1921 Census, the number of dwellings in Australia, including those being built, has been increased by 407,714, or 33.7 per cent., which is a much higher rate of increase than that of 22.0 per cent. for the population during the same period. The number of dwellings in the metropolitan areas increased by 247,891, or 48.7 per cent., to a total of 757,346; those in the provincial sections by 39,439, or 17.3 per cent., to 267,838; and in the rural areas by 120,384, or 25.5 per cent., to 593,316.

At the previous Census there was one private dwelling for every 4.9 persons in Australia but at the 30th June, 1933, this ratio had increased to one dwelling for every 4.4 persons. During the intercensal period there was an increase of one dwelling for every additional three persons. A more informative comparison as to housing conditions can be made, however, on the basis of the average number of dwellings per family unit. Since the 1921 Census the average of 115 dwellings for every 100 families has increased to 119 dwellings at the 1933 Census as the result of an addition during the intercensal period of 131 dwellings for every additional 100 family units. For the purpose of this comparison the number of family units has been limited to those in which both husband and wife were living at the time of the Census.

The following table represents a summary of the information relating to the number of dwellings in each State and Territory which was obtained at the Census of the 30th June, 1933:—

DWELLINGS.—CENSUS, 30th JUNE, 1933.

(Exclusive of Dwellings occupied solely by full-blood Aborigines.) (Revised figures.)

Division.	Occupied.	Unoccupied.	Being Built.	Total.	Percentage of Total Dwellings.
NEW SOUTH WALES.					
Urban—					%
Metropolitan	288,240	10,941	253	299,434	47.59
Provincial	127,190	4,701	192	132,083	20.99
Rural	184,320	13,095	301	197,716	31.42
Total	599,750	28,737	746	629,233	100.00
VICTORIA.					
Urban—					%
Metropolitan	235,672	6,669	394	242,735	53.66
Provincial	47,668	1,543	103	49,314	10.90
Rural	149,532	10,551	253	160,336	35.44
Total	432,872	18,763	750	452,385	100.00
QUEENSLAND.					
Urban—					%
Metropolitan	69,535	2,270	86	71,891	31.85
Provincial	44,989	2,618	77	47,684	21.12
Rural	101,598	4,423	138	106,159	47.03
Total	216,122	9,311	301	225,734	100.00

DWELLINGS.—CENSUS, 30TH JUNE, 1933—*continued.*

Division.	Occupied.	Unoccupied.	Being Built.	Total.	Percentage of Total Dwellings.
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SOUTH AUSTRALIA.

Urban—					%
Metropolitan	77,021	2,242	44	79,307	54.78
Provincial	12,361	478	22	12,861	8.88
Rural	49,892	2,633	94	52,619	36.34
Total	139,274	5,353	160	144,787	100.00

WESTERN AUSTRALIA.

Urban—					%
Metropolitan	47,713	1,506	176	49,395	45.79
Provincial	10,187	270	26	10,483	9.72
Rural	45,678	2,253	58	47,989	44.49
Total	103,578	4,029	260	107,867	100.00

TASMANIA.

Urban—					%
Metropolitan	14,066	495	23	14,584	26.50
Provincial	12,844	441	48	13,333	24.23
Rural	25,574	1,485	58	27,117	49.27
Total	52,484	2,421	129	55,034	100.00

NORTHERN TERRITORY.

Urban—					%
Provincial	437	17	1	455	33.53
Rural	864	38	..	902	66.47
Total	1,301	55	1	1,357	100.00

AUSTRALIAN CAPITAL TERRITORY.

Urban—					%
Provincial	1,583	37	5	1,625	77.27
Rural	412	66	..	478	22.73
Total	1,995	103	5	2,103	100.00

DWELLINGS.—CENSUS, 30TH JUNE, 1933—*continued.*

Division.	Occupied.	Unoccupied.	Being Built.	Total.	Percentage of Total Dwellings.
AUSTRALIA.					
Urban—					%
Metropolitan	732,247	24,123	976	757,346	46.79
Provincial	257,259	10,105	474	267,838	16.55
Rural	557,870	34,544	902	593,316	36.66
Total	1,547,376	68,772	2,352	1,618,500	100.00

2. *Class of Dwelling.*—As previously indicated, the dwellings in which the people are housed comprise private houses, tenements, flats, hotels, boarding houses, charitable institutions, etc. It is desirable when considering the question of housing to exclude those forms of accommodation which do not represent the normal housing conditions associated with family life, and the statistics which follow relate mainly to private dwellings only, i.e., private houses, tenements and flats.

At the 1933 Census 1,509,671, or 97.6 per cent. of the total occupied dwellings in Australia, were private dwellings, as compared with 1,107,010, or 96.0 per cent., at the previous Census. During the intercensal period the number of private dwellings in the Commonwealth increased by 402,661, or 36.4 per cent.; those in the metropolitan areas increased by 244,993, or 52.4 per cent.; the urban provincial by 41,804, or 20.1 per cent.; and in the rural areas by 115,864, or 26.9 per cent.

Of the 1,509,671 occupied private dwellings in Australia at the 30th June, 1933, 1,434,519, or 95.0 per cent. (96.5), were private houses, and 75,152 or 5.0 per cent. (3.5), were tenements or flats. The corresponding percentages for the 1921 Census are shown in parentheses. Since the previous Census the number of private houses in Australia increased by 365,912 or 34 per cent.; and the tenements and flats by 36,749, or 96 per cent.

In the metropolitan areas, private houses increased by 211,046, or 48 per cent., and tenements and flats by 33,047, or 122 per cent., as compared with an increase of 32.0 per cent. in the population and of 39.5 per cent. in the number of married persons in the same area during the same period of 12½ years. At the 1933 Census 5.4 per cent. of the population of the metropolitan areas of the Commonwealth were residing in tenements or flats as compared with 3.9 at the 1921 Census.

Since the 1921 Census there has been a decrease of 24 per cent. in the number of boarding houses in the Commonwealth. This reduction may be partly due to the financial depression and also to the fact that at the 1933 Census the designation of a boarding-house was definitely restricted to dwellings which were described as boarding-houses or dwellings in which there were three or more boarders and where there was no evidence that the head of the household had any other occupation and source of income.

The number of hotels also decreased since the previous Census, showing a decline of 17 per cent. for the Commonwealth. At the 30th June, 1933, there were 6,508 hotels in Australia, equivalent to 1.0 per thousand of population.

As would be anticipated, owing to the large number of persons travelling the roads in search of employment at the time of the Census, the number of groups camping out in the open on Census night was greater than formerly and totalled 9,381 as compared with 5,221 at the previous Census.

DWELLINGS.—CLASS OF OCCUPIED DWELLING—AUSTRALIA, 1921 AND 1933.

(Exclusive of Dwellings occupied solely by full-blood Aborigines.)

Number of Occupied Dwellings.

Class of Occupied Dwelling.	Census, 4th April, 1921.				Census, 30th June, 1933.				Increase, 1921-1933.
	Urban.		Rural	Total Australia.	Urban.		Rural.	Total Australia.	
	Metro-politan.	Pro-vincial.			Metro-politan.	Pro-vincial.			
Private House ..	440,092	202,270	426,245	1,068,607	651,138	240,199	543,182	1,434,519	365,912
Tenement or Flat ..	27,811	5,537	5,015	38,363	91,718	9,112	3,972	75,152	37,719
Total Occupied Private Dwellings ..	467,903	207,807	431,260	1,107,010	742,856	249,311	547,154	1,509,671	402,661
Caretaker's Quarters in Store, Office, etc. ..	864	298	462	1,624	1,326	483	651	2,460	836
Hotel ..	1,925	2,330	3,711	7,966	1,683	1,853	3,062	6,598	1,368
Boarding House, Lodging House, Coffee Palace ..	18,354	4,837	4,474	27,665	14,092	3,606	3,234	20,932	6,733
Educational Institution ..	400	325	309	1,034	479	303	359	1,141	107
Religious Institution (non-educational) ..	97	59	66	222	52	13	30	95	127(a)
Hospital ..	721	766	717	2,204	747	619	773	2,139	65(a)
Charitable Institution (other than Hospital) ..	240	109	260	609	253	66	109	428	181(a)
Penal Establishment ..	63	51	19	133	9	24	16	49	84(a)
Military or Naval Establishment ..	48	63	220	331	19	16	10	45	286(a)
Police Station or Barracks ..	207	386	882	1,475	209	300	1,011	1,520	45
Fire Station ..	158	82	25	265	117	102	42	261	4
Other (includes Club) ..	194	165	2,388	2,747	310	231	1,308	1,849	710
Not Stated ..									
Total Other Occupied Dwellings ..	23,271	9,471	13,533	46,275	19,341	7,648	10,716	37,705	8,570
Total Occupied Dwellings ..	491,184	217,278	444,823	1,153,285	732,247	257,259	557,870	1,547,376	394,091
Total Occupied Dwellings per square mile ..	492.26	59.68	0.15	0.39	579.99	82.99	0.19	0.52	0.13
Wagon, Van, etc. (includes campers out) ..	63	570	4,588	5,221	268	1,669	7,444	9,381	4,160

(a) At the 1921 Census, detached buildings in some cases may have been counted separately, whereas in 1933 they have been counted together as one institution. NOTE.—Minus sign (—) denotes decrease.

3. Materials of Outer Walls.—Particulars concerning the materials of which the outer walls were built were supplied for 1,429,868 of the 1,434,519 private houses in Australia, and of these 54.0 per cent. were of wood; 29.2 per cent. brick; 5.3 per cent. stone; 5.0 per cent. iron; 2.6 per cent. were made of canvas or hessian; 1.6 per cent. fibro-cement; 1.1 per cent. concrete; and 1.2 per cent. of other materials.

In the metropolitan areas 53.2 per cent. of the private houses had walls of brick and 39.8 per cent. of wood. In the provincial sections the conditions were reversed, 67.7 per cent. being of wood and 17.5 per cent. of brick, whilst in the rural areas 65.0 per cent. were built of wood and only 5.3 per cent. of brick.

Since the 1921 Census, brick dwellings in the Commonwealth increased by 163,266 or 54 per cent. Wooden dwellings increased by 172,496 or 28 per cent., a little more than half of these being built in the metropolitan areas; fibro-cement dwellings by 19,433, or at the high rate of 456 per cent., mostly constructed outside the metropolitan areas; iron houses by 28,422 or 65 per cent., 1,065 of these being erected in the metropolitan areas and 27,357 outside; concrete houses by 9,964 or 132 per cent., about one-half being erected in New South Wales and one-fourth in Victoria.

Dwellings in tents increased in number by 9,005, or 31 per cent. As would be anticipated, owing to the provision of relief works for a large number of unemployed, 98 per cent. of these canvas structures were located outside the metropolitan areas.

Of the 74,122 tenements and flats in Australia for which particulars as to walls were stated, 70.1 per cent. were built of brick; 20.4 per cent. wood; 5.6 per cent. stone; and 3.9 per cent. of other materials.

DWELLINGS.—OCCUPIED PRIVATE DWELLINGS CLASSIFIED ACCORDING TO MATERIALS OF WHICH OUTER WALLS WERE BUILT—AUSTRALIA, 1921 AND 1933.

(Exclusive of Dwellings occupied solely by full-blood Aborigines.)

Number of Occupied Private Dwellings.

Materials of which Outer Walls were built.	Census, 4th April, 1921.				Census, 30th June, 1933.				Increase 1921-1933.
	Urban.		Rural.	Total Australia.	Urban.		Rural.	Total Australia.	
	Metro-politan.	Pro-vincial.			Metro-politan.	Pro-vincial.			
Stone	34,394	10,217	35,342	79,983	30,149	11,588	38,166	80,203	220
Brick	245,232	37,593	20,825	301,653	393,528	45,320	29,071	467,919	163,266
Concrete	3,548	1,189	2,824	7,561	5,908	2,912	8,705	17,525	9,964
Iron	3,853	9,656	30,281	43,790	4,918	13,527	53,767	72,212	28,422
Wood	173,115	143,701	297,629	614,775	206,528	166,990	353,753	787,271	172,496
Sun-dried Bricks ..	984	291	4,408	5,683	151	342	5,013	5,506	177
Pisé	20	249	2,236	2,505	14	240	2,296	2,550	45
Lath and Plaster ..	2,672	432	1,189	4,293	2,916	514	1,667	5,037	744
Wattle and Dab ..	40	73	1,376	1,489	23	32	1,221	1,276	213
Elbro Cement	1,178	794	2,291	4,263	5,847	3,773	14,076	23,096	19,433
Bark	9	31	2,164	2,204	..	39	2,185	2,224	20
Bushes, Rushes ..	..	4	485	489	..	9	396	405	84
Canvas, Calico, Hessian ..	337	1,555	26,827	28,850	873	3,554	33,428	37,855	9,005
Rubberoid and other compositions ..	51	70	567	688	11	14	115	140	548
Other Materials ..	141	78	554	773	49	31	91	171	602
Not Stated	1,959	813	2,239	5,011	1,991	726	2,964	5,681	670
Total Private Dwellings	467,913	207,807	431,290	1,107,010	712,906	249,611	547,154	1,509,671	402,661

NOTE.—Minus sign (—) denotes decrease.

4. Number of Rooms.—For Census purposes, the kitchen and any enclosed sleep-out or portion of a verandah that was permanently enclosed were included in the number of rooms in the dwelling, but the bathroom, pantry and store were not included unless generally used for sleeping. The average number of rooms per private house in Australia at the 30th June 1933, was 5.03, and was slightly higher than that of 4.90 rooms at the previous Census. The average per private house in the metropolitan areas increased from 5.24 to 5.36 rooms; in the provincial sections the average scarcely altered, being 5.09 as compared with 5.11; and in the rural areas the average of 4.60 rooms per house was slightly lower than at the 1921 Census when the average was 4.67.

The average number of rooms for all tenements and flats was considerably less than that for private houses, and showed a substantial decline from 3.77 to 3.08 rooms, indicating a tendency towards even smaller flats. The reduction in the size of tenements and flats occurred throughout all divisions; the average for the metropolitan areas fell from 3.74 to 3.22 rooms and for the provincial sections from 3.87 to 2.52 rooms, with the heaviest decline of all in the rural areas from 3.85 to 2.24 rooms.

Of the 1,421,810 private houses for which particulars concerning rooms were stated at the 1933 Census, 4.0 (3.9) per cent. consisted of one room only; 3.0 (3.4) per cent. of two rooms; 5.3 (6.9) per cent. of three rooms; 21.6 (24.1) per cent. of four rooms; 29.8 (29.1) per cent. of five rooms; 21.4 (18.1) per cent. of six rooms; 8.6 (7.6) per cent. of seven rooms; 3.4 (3.6) per cent. of eight rooms; and 2.9 (3.3) per cent. of more than eight rooms. The corresponding figures for the 1921 Census are shown in parentheses.

At the 1933 Census 81 per cent. of the private houses in Australia comprised four, five, six, or seven rooms as compared with 79 per cent. at the previous Census. During the intercensal period, nine-tenths of the new houses erected in the Commonwealth consisted of four, five, six, or seven rooms. The greatest percentage increase was shown for private houses of six rooms, 59 per cent.; followed by those of seven rooms, 51 per cent.; five rooms, 37 per cent.; and eight rooms, 30 per cent.

Two-thirds of the tenements and flats in the Commonwealth consisted of two, three, or four rooms, and six-sevenths of the increase in the number of these dwellings during the intercensal period consisted of from two to four rooms; the greatest proportional increases were for those of two, three, and four rooms in that order. Flats of six rooms show a comparatively small increase in number, whilst those with more than six rooms have actually decreased in number by 39 per cent. Here again, as in the case of the larger private houses, there is evidence of subdivision into flats of smaller size.

DWELLINGS.—OCCUPIED PRIVATE DWELLINGS CLASSIFIED ACCORDING TO NUMBER OF ROOMS—AUSTRALIA, 1921 AND 1933.

(Exclusive of Dwellings occupied solely by full-blood Aborigines) (Revised figures.)

Number of Occupied Private Dwellings.									
Number of Rooms per Dwelling.(a)	Census, 4th April, 1921.				Census, 30th June, 1933.				Increase 1921-1933.
	Urban.		Rural.	Total Australia.	Urban.		Rural.	Total Australia.	
	Metro-politan.	Pro-vincial.			Metro-politan.	Pro-vincial.			
1	5,845	4,036	35,956	45,837	7,676	7,556	49,063	64,295	18,458
2	8,897	5,489	26,772	41,158	16,005	8,142	33,440	57,587	16,429
3	34,784	11,289	34,378	80,451	39,684	11,622	40,271	91,577	11,126
4	112,254	49,565	102,397	264,216	148,457	52,362	122,579	323,398	59,182
5	143,637	69,411	101,774	314,822	220,327	81,170	130,650	432,147	117,325
6	89,968	39,172	65,293	194,433	165,017	52,846	89,408	307,271	112,838
7	37,049	15,187	29,985	82,221	63,560	19,816	39,830	123,206	40,985
8	17,311	6,607	14,000	38,518	24,776	7,416	17,356	49,548	11,030
9	7,190	2,789	6,052	16,031	10,153	2,876	6,982	20,011	3,980
10	3,932	1,530	3,517	8,979	4,706	1,463	3,859	10,028	1,049
11	1,675	592	1,298	3,565	1,968	546	1,520	4,034	469
12	1,208	391	1,248	2,847	1,463	382	1,419	3,264	417
13	483	172	429	1,084	560	124	452	1,136	52
14	409	136	532	1,137	499	140	588	1,227	90
15	230	64	261	555	244	64	346	654	99
16	151	37	223	411	144	45	236	425	14
17	95	35	112	242	89	19	168	276	34
18	62	16	91	169	51	24	122	197	28
19	39	4	56	99	29	7	49	85	14
20 and over ..	199	54	308	561	131	32	352	515	40
Not Stated ..	2,435	1,231	6,008	9,674	7,307	2,959	8,464	18,790	9,116
Total Private Dwellings	467,913	207,807	431,290	1,107,010	712,906	249,611	547,154	1,509,671	402,661
Average Number of Rooms per Private Dwelling(a)	5.15	5.07	4.66	4.94	5.23	5.06	4.65	4.99	0.05

(a) Includes kitchen and enclosed sleep-out or portion of a verandah that has been permanently enclosed, but does not include bathroom, pantry, store of outhouse, unless generally used for sleeping.

NOTE.—Minus sign (—) denotes decrease.

5. Number of Inmates.—The percentage increase in the number of dwellings in Australia since the 1921 Census has been much greater than the rate of increase of the population, consequently the average number of inmates per dwelling has decreased. The average per private house in the Commonwealth decreased from 4.44 inmates at the previous Census to 4.15 at the 30th June, 1933, and this reduction has been fairly general throughout the metropolitan, provincial and urban divisions.

The average number of rooms per private house was slightly higher than at the previous Census and, as the increment to the population during the intercensal period was less than that of dwellings, the average number of inmates per room for all private houses in Australia decreased from 0.89 to 0.82 persons per room. The largest reduction has occurred in the metropolitan areas where the average per room was 0.77 at the 1933

Census, as compared with 0.86 at the 1921 Census. The average in the provincial areas decreased from 0.87 to 0.81 persons per room, and, in accordance with previous experience the average number of 0.89 persons per room in the rural areas, although showing a decrease from the previous Census, was greater than that in the other divisions.

There has been a reduction also in the average number of inmates per room in tenements and flats from 0.91 to 0.83 which is almost the same number of inmates per room as the average for all private houses in the Commonwealth. This decrease is mainly in the metropolitan areas where the average number per room was 0.79 as compared with 0.88 at the previous Census. In the provincial areas, there was a slight increase from 0.97 to 0.99 and in the rural areas a greater one from 1.03 to 1.10 persons per room.

An interesting comparison is that relating to the average number of male and female breadwinners in each occupied dwelling at the 30th June, 1933, and at the previous 1921 Census. The average number of breadwinners in each occupied dwelling in Australia at the 30th June, 1933, was as follows:—Males, 1.52; females, 0.51; total breadwinners, 2.03; as compared with 1.63; 0.40; and 2.03 respectively per dwelling at the previous Census. No change occurred in the average number of breadwinners per dwelling in the Commonwealth, but the average number of male breadwinners per occupied dwelling decreased by 7 per cent., while female breadwinners per dwelling increased by 28 per cent. during the intercensal period.

DWELLINGS.—OCCUPIED PRIVATE DWELLINGS CLASSIFIED ACCORDING TO NUMBER OF INMATES—AUSTRALIA, 1921 AND 1933.

(Exclusive of Dwellings occupied solely by full-blood Aborigines.)

Number of Occupied Private Dwellings.

Census, 4th April, 1921.					Census, 30th June, 1933.					Increase 1921- 1933.
Number of Inmates per Dwelling.(a)	Urban.		Rural.	Total Aus- tralia.	Urban.		Rural.	Total Aus- tralia.		
	Metro- politan.	Pro- vincial.			Metro- politan.	Pro- vincial.				
1	20,255	16,065	61,300	97,620	34,765	19,818	74,202	128,785	31,165	
2	66,972	28,509	58,027	153,508	125,582	40,071	82,234	247,887	94,379	
3	88,241	35,997	60,908	185,146	154,983	48,064	87,864	290,911	105,765	
4	91,552	36,832	62,706	191,090	150,039	47,306	88,743	286,088	94,998	
5	75,486	31,652	56,331	163,469	107,194	36,803	74,276	218,273	54,804	
6	52,530	23,463	45,054	121,047	65,452	24,548	54,090	144,090	23,043	
7	32,962	15,392	32,973	81,327	36,619	15,043	36,201	87,863	6,536	
8	19,059	9,348	22,628	51,035	20,437	9,333	24,345	54,115	3,080	
9	10,455	5,348	14,046	29,849	9,059	4,207	11,416	24,682	5,167	
10	5,535	2,830	8,169	16,534	4,558	2,258	6,631	13,447	3,087	
11	2,672	1,325	4,503	8,500	2,233	1,146	3,388	6,767	1,733	
12	1,215	579	2,336	4,130	1,070	552	1,829	3,451	679	
13	532	277	1,058	1,867	474	249	931	1,654	213	
14	243	104	592	939	228	122	425	775	164	
15	108	41	305	454	115	52	236	403	51	
16	41	27	164	232	48	26	156	230	2	
17	23	11	77	111	21	6	63	90	21	
18	16	2	52	70	18	3	45	66	4	
19	8	3	29	40	5	1	38	44	4	
20 and over ..	8	2	32	42	6	3	41	50	8	
Total Private Dwellings	467,913	207,807	431,290	1,107,010	712,900	249,611	547,154	1,509,671	402,661	
Total Inmates (a)	2,067,961	914,350	1,893,117	4,875,428	2,876,505	1,030,694	2,257,210	6,164,709	1,280,281	
Average Number of Inmates per Private Dwelling (a)	4.42	4.40	4.39	4.40	4.04	4.13	4.13	4.08	0.32	

(a) Includes all persons sleeping out on verandahs or in sleep-outs.

NOTE.—Minus sign (—) denotes decrease.

6. **Persons Sleeping Out.**—The 1933 Census was the first occasion on which this question was included on the Census Schedule. It was felt that a reliable basis of comparison of the housing statistics of the various States was not possible hitherto, owing to the wide divergence in the numbers of persons who sleep out on verandahs, etc., in the northern and southern sections of Australia.

The Census results for the Commonwealth show that 4.5 per cent. of the occupants of private houses and 3.8 per cent. of the occupants of flats regularly sleep out on unenclosed verandahs, etc. In the provincial areas 5.3 per cent. of the population occupy such sleep-outs, 5.0 per cent. in the rural areas, and 3.7 per cent. in the metropolitan areas. These figures do not include those occupying permanently enclosed sleep-outs who are regarded for Census purposes as inmates of rooms. The average number of occupants of flats who sleep out is less than that for private houses, and is probably due to the smaller average number of inmates per flat.

As would be anticipated, owing to climatic conditions, the largest percentage of occupants who sleep out on unenclosed verandahs was recorded in Queensland, 7.6 per cent.; followed by Western Australia, 7.0 per cent.; New South Wales, 4.9 per cent.; Victoria, 2.7 per cent.; South Australia, 2.5 per cent.; and Tasmania, 1.8 per cent.

DWELLINGS.—OCCUPIED PRIVATE DWELLINGS CLASSIFIED ACCORDING TO THE NUMBER OF PERSONS SLEEPING OUT ON VERANDAHS, ETC.—AUSTRALIA, 1921 AND 1933.

(Exclusive of Dwellings occupied solely by full-blood Aborigines.)

Number of Occupied Private Dwellings.

Number of Persons Sleeping out.(a)	Private Houses.				Tene- ments and Flats.	Total Private Dwellings.			
	Urban.		Rural.	Total Aus- tralia.		Urban.		Rural.	Total Aus- tralia.
	Metro- politan.	Pro- vincial.				Metro- politan.	Pro- vincial.		
0	589,029	212,259	484,619	1,285,907	69,504	646,039	221,014	488,358	1,355,411
1	36,748	13,558	27,823	78,129	3,912	40,153	13,932	27,956	82,041
2	17,006	8,085	17,349	42,440	1,324	18,082	8,269	17,413	43,764
3	5,230	3,439	7,091	15,760	284	5,430	3,500	7,114	16,044
4	2,045	1,704	3,678	7,427	89	2,101	1,726	3,689	7,516
5	660	680	1,452	2,792	26	673	692	1,453	2,818
6	233	297	672	1,202	2	234	298	672	1,204
7	77	105	258	440	..	77	105	258	440
8	41	50	127	218	1	42	50	127	219
9	8	8	38	54	..	8	8	38	54
10	14	4	16	34	..	14	4	16	34
11	2	..	3	5	..	2	..	3	5
12	..	..	4	4	..	..	..	4	4
13	..	..	1	1	..	..	..	1	1
15	..	..	1	1	..	..	..	1	1
17	..	..	1	1	..	..	..	1	1
Indefinite	45	10	49	104	10	51	13	50	114
Total Private Dwellings	1,051,138	240,199	543,182	1,434,519	75,152	712,906	249,611	547,154	1,509,671
Total Persons Sleeping out (a)	100,429	53,290	113,248	266,967	7,918	106,889	54,369	113,627	274,885
Average Number per Occupied Private Dwelling (a) ..	0.15	0.22	0.21	0.19	0.11	0.15	0.22	0.21	0.18

(a) Includes only persons sleeping out on verandahs or in sleep-outs which were not permanently enclosed.

7. **Nature of Occupancy.**—At the 1921 Census the nature of occupancy of private houses was not tabulated separately from tenements and flats. At the 1933 Census, however, it was ascertained that 42.8 per cent. of the private houses in Australia for which particulars were supplied were occupied by owners; 13.5 per cent. by purchasers by instalments; 39.1 per cent. by tenants; and 4.6 per cent. by others.

In the metropolitan areas 51.4 per cent. of the occupants of private houses were owners or purchasers by instalments, as compared with 54.4 per cent. in the provincial areas, and 63.2 per cent. in the rural areas. In the latter areas, however, the ownership of the house is associated with the ownership of the land acquired as a means of livelihood.

More than 91 per cent. of the tenements and flats in the Commonwealth were occupied by tenants. The figures for all private dwellings, including tenements and flats, show that at the 1933 Census 53.8 per cent. of the dwellings were occupied by owners or were in process of purchase by instalments and 41.7 per cent. were occupied by tenants, as compared with 53.7 per cent. and 41.7 per cent. respectively at the 1921 Census, showing practically no alteration during the intercensal period.

DWELLINGS.—OCCUPIED PRIVATE DWELLINGS CLASSIFIED ACCORDING TO THE NATURE OF OCCUPANCY—AUSTRALIA, 1921 AND 1933.

(Exclusive of Dwellings occupied solely by full-blood Aborigines.)

Number of Occupied Private Dwellings.									
Nature of Occupancy.	Census, 4th April, 1921.				Census, 30th June, 1933.				Increase, 1921- 1933.
	Urban.		Rural.	Total Aus- tralia.	Urban.		Rural.	Total Aus- tralia.	
	Metro- politan.	Pro- vincial.			Metro- politan.	Pro- vincial.			
Owner	133,729	81,008	227,026	441,763	218,539	100,421	285,453	604,413	162,650
Purchaser by Instalments	79,155	25,007	33,321	137,983	117,305	28,720	43,602	189,627	51,644
Tenant	241,567	91,031	117,082	449,680	360,393	108,359	146,660	615,412	165,732
Caretaker					6,410	5,022	29,331	40,763	
Other Methods of Oc- cupancy	6,036	6,025	37,514	49,575	3,146	2,810	19,166	25,122	16,310
Not Stated .. .. .										7,526	4,136	16,347	28,009	7,113	4,279	22,942	34,334	6,325
Total	467,913	207,807	431,290	1,107,010	712,906	249,611	547,154	1,509,671	402,661

8. Rent per Week.—The information which has been tabulated concerning rents is restricted to the actual rent paid per week for unfurnished private dwellings occupied by tenants. The particulars required concerning rent were supplied for 89 per cent. of the 549,275 private houses and for 91 per cent. of the 66,137 tenements and flats in Australia. For 15.5 per cent. of the private houses the rent was less than 10s. per week; for 49.8 per cent., between 10s. and £1 per week; for 27.4 per cent., between £1 and £1 10s. per week; and for 7.3 per cent., over £1 10s. per week. Three-fourths of the houses with rents of less than 10s. per week were located outside the metropolitan areas.

The average rent was 17s. per week for unfurnished private houses throughout the Commonwealth; 10s. 7d. per week in the metropolitan areas, 15s. 0d. in the provincial sections, and 11s. 2d. in the rural areas.

The average rent for unfurnished tenements and flats in the metropolitan areas was 23s. 6d. per week, or approximately 20 per cent. more than that paid for private houses in the same areas, notwithstanding that private houses in the metropolitan areas contain 50 per cent. more rooms than flats. In the provincial and rural areas, however, the rent of tenements and flats was approximately 15 per cent. and 11 per cent. respectively less than for private houses. For 16.0 per cent. of the tenements and flats a rent of less than 10s. per week was paid, and this percentage was slightly greater than for private houses; the 33.8 per cent. between 10s. and £1 per week was only two-thirds the proportion of private houses in this group; the percentage of 26.5 between £1 and £1 10s. per week was practically similar for private houses and flats; but the 22.8 per cent. of tenements and flats with rent exceeding £1 10s. per week was three times the percentage of private houses in this rental group.

A comparison of the average rents at the 1933 Census with those at the previous Census is possible for all private dwellings only and not for private houses separately from tenements and flats, which were not tabulated separately at the 1921 Census. The average rent of 17s. 6d. per week for all private dwellings comprising private houses, tenements and flats in the Commonwealth was 6 per cent. higher than that at the 1921 Census. The average of 20s. 2d. for the metropolitan areas at the 30th June, 1933, was 2.4 per cent. lower than for the previous Census, the average of 15s. 7d. in the provincial areas, however, was 11 per cent. higher, and the average of 11s. 2d. in the rural areas was also 13 per cent. higher than at the previous Census.

During the intercensal period particulars are collected regularly by the Commonwealth Statistician from house agents in certain cities and towns throughout the Commonwealth showing the rents as at the middle of each quarter. A comparison of these figures for the first quarter of the year 1921 with the second quarter of 1933 shows approximately the same change in average rents as was obtained from the Census figures. They also show that the peak period of high rents during the intercensal period occurred in the first quarter of the year 1928 when the average for the metropolitan areas of Australia was 21 per cent. higher than for the year 1921, but since that peak year the average has fallen by 20 per cent. to the 1933 figure.

In the metropolitan areas 15 per cent. of the total private dwellings were tenements and flats, and the percentages of the total numbers of private dwellings in the several rental groups which consisted of tenements and flats were as follows:—Under 10s. per week, 29 per cent.; between 10s. and £1, 10 per cent.; between £1 and £1 10s., 13 per cent.; between £1 10s. and £2, 26 per cent.; between £2 and £2 10s., 36 per cent.; and in the over £2 10s. per week rental group 47 per cent. were tenements and flats.

DWELLINGS.—PRIVATE DWELLINGS OCCUPIED BY TENANTS CLASSIFIED ACCORDING TO THE RENT PER WEEK—AUSTRALIA, 1921 AND 1933.

(Exclusive of Dwellings occupied solely by full-blood Aborigines.)

Number of Occupied Private Dwellings.

Rent per week Unfurnished.	Census, 4th April, 1921.				Census, 30th June, 1933.				Increase, 1921- 1933.
	Urban.		Rural.	Total Aus- tralia.	Urban.		Rural.	Total Aus- tralia.	
	Metro- politan.	Pro- vincial.			Metro- politan.	Pro- vincial.			
Under 5s. . . .	1,067	3,317	18,304	22,688	1,663	2,837	14,869	19,369	- 3,319
5s. and under 10s. . . .	12,786	19,885	37,957	70,628	20,333	13,565	32,083	66,281	- 4,347
10s. " " 15s. . . .	50,331	31,158	29,830	111,310	71,755	30,618	33,435	135,808	18,489
15s. " " 20s. . . .	50,881	10,535	10,180	83,305	80,305	25,186	16,030	127,587	44,282
20s. " " 25s. . . .	40,486	9,104	5,683	55,273	74,400	16,800	9,173	100,439	45,166
25s. " " 30s. . . .	25,373	3,700	1,810	30,883	39,777	6,310	2,860	48,947	18,310
30s. " " 35s. . . .	14,305	1,884	1,061	17,250	21,403	2,827	1,051	25,281	8,031
35s. " " 40s. . . .	5,900	441	207	6,548	8,274	712	180	9,166	2,618
40s. " " 50s. . . .	6,589	570	469	7,628	7,992	505	170	8,667	1,039
50s. " " 60s. . . .	2,726	179	126	3,031	2,642	95	55	2,792	- 239
60s. " " 70s. . . .	1,556	123	85	1,764	1,488	57	21	1,566	- 198
70s. " " 80s. . . .	579	24	26	629	593	10	5	608	- 21
80s. " " 90s. . . .	503	35	34	572	445	5	2	452	- 120
90s. " " 100s. . . .	210	11	3	224	189	6	..	195	- 29
100s. and over	580	14	20	613	482	7	4	493	- 130
Not Stated	15,995	4,042	11,533	31,570	22,532	8,513	36,716	67,761	36,191
Total Private Dwell- ings	241,567	91,031	117,082	449,680	360,393	108,359	146,660	615,412	165,732
Average Weekly Rent per Private Dwelling	20s. 8d.	14s. 0d.	9s. 11d.	16s. 6d.	20s. 2d.	15s. 7d.	11s. 2d.	17s. 6d.	1s. 0d.

NOTE.—Minus sign (—) denotes decrease.

9. **Private Houses of three to six rooms.**—A special inquiry has been made concerning private houses of three to six rooms with walls of wood, or of brick or stone, as a more satisfactory average of predominant rents paid by wage earners can be obtained by restricting the analysis to this group, which as previously indicated comprises 78.1 per cent. of the private houses in Australia.

Since the 1921 Census the number of houses of three to six rooms in Australia has increased by 34 per cent. to a total of 1,108,594. Particulars as to rent are summarized for 440,560 houses of this number with walls of wood, brick or stone which were occupied by tenants; 46 per cent. had walls of brick or stone and 54 per cent. of wood. The distribution is the same as that of the previous Census and there was no proportional increase in the number of brick houses of three to six rooms in the rented group during the intercensal period.

At the 1933 Census there was a smaller proportion of rented houses of three and four rooms and an increased proportion of those of five and six rooms, for both wooden houses and brick houses. The relative increases for rented houses of three, four, five and six rooms during the intercensal period were 2, 28, 43 and 60 per cent. respectively. The proportional increase of houses of five and six rooms was even higher in the metropolitan areas. The average rent of 18s. 5d. per week for all private houses, three to six rooms, of wood, brick or stone in the metropolitan areas at the 1933 Census was practically the same as at the previous Census.

In the provincial sections the average rent of 15s. 7d. per week was much higher than at the previous Census and the increase is found for all houses of three, four, five or six rooms, whether of wood, brick or stone. In the rural areas also the average rent of 11s. 6d. was much higher than that at the 1921 Census, and an increase is found in all types of houses included in this group.

An interesting comparison with respect to the rent of private houses is that based on the average weekly rent per room. At the 1933 Census the average rent per room for wooden houses in the metropolitan areas of Australia was 3s. 5d. per week, and showed little alteration from the average of 3s. 6d. per week at the 1921 Census. Similarly, the average of 4s. 1d. per room for brick houses in the metropolitan areas was practically the same as at the previous Census.

In the urban provincial sections, however, the average rent of 3s. 1d. per room for wooden houses was higher than the 1921 Census figure of 2s. 8d. per week, and the rent of 3s. 6d. per week for brick houses was also higher in comparison with the previous figure of 3s. 1d. per week. The average rent per room in the rural areas also showed increases from 2s. 1d. to 2s. 6d. per week for wooden houses, and from 2s. 3d. to 2s. 7d. per week for those of brick. With the exception of brick houses in the metropolitan areas, the average rent per room for houses of three rooms was generally higher than for houses of four, five or six rooms. The increase since the 1921 Census in the rent per room was somewhat similar for all houses of three to six rooms in the provincial and rural sections of the Commonwealth.

DWELLINGS.—AVERAGE WEEKLY RENT PER ROOM OF PRIVATE HOUSES, THREE TO SIX ROOMS, WITH WALLS OF WOOD, BRICK OR STONE, OCCUPIED BY TENANTS— AUSTRALIA, 1921 AND 1933.

(Exclusive of Tenements, Flats, Boarding-houses, Hotels, etc., and of Dwellings occupied solely by full-blood Aborigines.)

Average Weekly Rent per Room.

Particulars.	Census, 4th April, 1921.				Census, 30th June, 1933.				Increase. 1921- 1933.
	Urban.		Rural.	Total. Aus- tralia.	Urban.		Rural.	Total. Aus- tralia.	
	Metro- politan.	Pro- vincial.			Metro- politan.	Pro- vincial.			
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Private Houses with Walls of—									
Wood—									
3 rooms	3 9	3 3	2 6	3 2	3 8	3 6	2 8	3 3	0 1
4 "	3 7	2 9	2 2	2 10	3 7	3 4	2 7	3 2	0 4
5 "	3 5	2 7	2 1	2 9	3 5	3 1	2 0	3 1	0 4
6 "	3 5	2 6	2 0	2 7	3 4	2 11	2 3	2 11	0 4
3 to 6 rooms ..	3 6	2 8	2 1	2 9	3 5	3 1	2 6	3 1	0 4
Brick or Stone—									
3 rooms	4 0	3 5	2 4	3 10	4 0	3 9	2 6	3 11	0 1
4 "	4 2	3 3	2 2	3 11	4 2	3 7	2 7	4 0	0 1
5 "	4 2	3 1	2 3	3 10	4 1	3 6	2 8	3 11	0 1
6 "	4 1	3 0	2 3	3 10	4 1	3 5	2 7	3 11	0 1
3 to 6 rooms ..	4 2	3 1	2 3	3 10	4 1	3 6	2 7	3 11	0 1
Wood, Brick or Stone—									
3 rooms	3 11	3 4	2 5	3 6	3 11	3 7	2 8	3 7	0 1
4 "	3 11	2 11	2 2	3 3	3 11	3 4	2 7	3 6	0 3
5 "	3 11	2 9	2 1	3 3	3 10	3 3	2 6	3 6	0 3
6 "	3 11	2 8	2 0	3 3	3 10	3 1	2 4	3 5	0 2
3 to 6 rooms ..	3 11	2 9	2 2	3 3	3 10	3 3	2 6	3 6	0 3

§ 11. Oversea Migration.

1. Oversea Migration during Present Century.—Earlier issues of the Official Year Book contained in summary form tables showing the increase of population by net migration from 1861 to the latest date, while the Demography Bulletins issued by this Bureau give this information in respect of the individual years. On page 332 of this chapter a summary will be found of the increase by net migration to the population of the States—from 1901 to 1935 in quinquennial groups and from 1908 to 1937 in single years. The following table shows for Australia as a whole the arrivals and departures as well as the net migration since 1901:—

OVERSEA MIGRATION.—AUSTRALIA.

Period.	Arrivals.			Departures.			Net Migration.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
1901-05..	196,993	84,167	281,160	204,170	93,783	297,953	- 7,177	- 9,616	- 16,793
1906-10..	251,482	119,552	371,034	213,483	100,273	313,756	37,999	19,279	57,278
1911-15..	422,927	209,893	632,820	382,552	113,406	495,958	40,375	96,487	136,862
1916-20..	118,721	100,704	219,425	100,202	78,874	178,276	48,519	22,190	70,709
1921-25..	289,695	188,357	478,052	172,236	122,550	294,786	117,459	65,807	183,266
1926-30..	266,593	203,887	470,480	193,336	147,437	340,773	73,287	56,450	129,707
1931-35..	124,207	115,116	239,323	134,883	115,326	250,209	- 10,676	- 210	- 10,886
1928 ..	55,921	43,871	99,792	39,360	30,369	69,738	16,552	13,502	30,054
1929 ..	44,508	37,740	82,248	39,735	30,693	70,428	4,773	7,047	11,820
1930 ..	33,881	29,212	63,093	49,989	30,634	71,623	- 7,108	- 1,422	- 8,530
1931 ..	21,986	18,428	40,414	30,350	20,152	50,508	- 8,370	- 1,724	- 10,094
1932 ..	22,637	19,360	41,997	24,864	20,130	44,994	- 2,227	- 770	- 2,997
1933 ..	24,457	23,335	47,792	25,053	22,525	47,578	- 596	810	214
1934 ..	27,451	26,253	53,704	26,428	24,996	51,424	1,023	1,257	2,280
1935 ..	27,676	27,740	55,416	28,182	27,523	55,705	- 506	217	- 289
1936 ..	29,726	30,168	59,894	29,045	29,352	58,397	681	816	1,497
1937 ..	35,123	34,679	69,802	32,161	32,438	64,599	2,962	2,241	3,203

NOTE.—Minus sign (—) indicates an excess of departures over arrivals.

The net migration has varied greatly during the above periods, reaching a maximum in the five years 1921-25. The Great War, during which 331,781 members of the Australian Imperial Forces embarked for service overseas, was responsible for a very large increase in the departures during the years 1914 to 1918. Immigration increased rapidly from 1910 to 1912, the gain during the latter year being the greatest in any one year in the present century (with the exception of 1919 when the troops were returning to Australia).

Although the quinquennium 1926-30 as a whole resulted in the considerable gain of 129,707 persons, the figures for the individual years reveal the decline in immigration which set in after 1927 and which resulted in an actual loss of population in 1930, 1931, 1932 and 1935.

The influence of the Commonwealth immigration policy is clearly reflected in the above figures. The average annual number of nominated and selected immigrants arriving in Australia during the periods specified was as follows:—

IMMIGRATION.—NUMBER OF NOMINATED AND SELECTED PERSONS.

Period.	Average Annual Number.	Year.	Recorded Number.
1901-05	Not available	1931	275
1906-10	7,945	1932	175
1911-15	30,111	1933	72
1916-20	2,326	1934	159
1921-25	23,090	1935	100
1926-30	19,881	1936	9
1931-35	734	1937	141

The number of nominated and selected immigrants reached its peak in 1926, when 31,260 arrivals were recorded.

2. Country of Embarkation and Destination.—The countries from which the migrants arrived or to which they departed are shown for the year 1937 in Demography Bulletin No. 55. Annual averages for the period 1925-29 will be found in Official Year Book No. 25.

3. Nationality or Race.—The preponderance of migrants to and from Australia is of British nationality, while only a small proportion is of non-European race.

The number of arrivals and departures of migrants since 1926 classified according to nationality or race is shown in the next table.

NATIONALITY OR RACE OF ARRIVALS AND DEPARTURES.—AUSTRALIA.

Nationality or Race.	Arrivals.			Departures.		
	1926-30.	1931-35.	1937.	1926-30.	1931-35.	1937.
British	386,669	200,159	56,142	281,449	210,549	56,553
French	3,394	3,090	629	3,292	3,003	625
German	3,172	1,446	878	1,961	1,294	468
Greek	3,842	1,435	1,402	2,040	1,629	238
Italian	19,170	7,234	2,623	8,017	5,711	808
Yugoslavian ..	4,426	1,203	653	2,280	1,242	214
United States ..	8,916	5,065	2,235	8,101	5,119	1,943
Other European ..	15,355	4,432	2,339	7,001	4,863	1,091
Total European ..	444,944	224,064	66,901	314,741	233,410	61,940
Chinese	15,649	8,709	1,616	17,513	9,972	1,568
Japanese	1,762	1,625	485	2,004	2,050	471
Indian and Cingalese	2,790	2,007	489	2,095	1,775	454
Other Non-European	5,335	2,918	311	4,420	3,002	166
Total Non-European	25,536	15,259	2,901	26,032	16,799	2,659
Total	470,480	239,323	69,802	340,773	250,209	64,599

During the period 1926-30 there was a considerable influx of Italian, Greek and Yugoslavian settlers, so that although there was also much concurrent emigration of these nationals they provided a large permanent addition to the population of Australia. In the following quinquennium 1931-1935, however, there was a considerably reduced increment to the Italian population by migration, whilst there was actually an excess of departures of most other nationals. In the year 1937 the increase in the number of Southern Europeans was greater than in any other year during the past quinquennium, the net addition of these peoples to the population being 3,782 persons, compared with 1,791 in 1935 and 1,740 in 1936. During recent years there has generally been an excess of departures of non-European people as a whole though it is not true of all non-European nationals, but in 1937 the movements of non-Europeans resulted in an excess of arrivals. The net gain or loss according to nationality or race for the same periods and the percentage of each nationality on the total gain or loss for the year are given in the following table:—

NET GAIN OR LOSS.—NATIONALITY OR RACE.—AUSTRALIA.

Nationality or Race.	Net Gain or Loss.			Proportion.		
	1926-30.	1931-35.	1937.	1926-30.	1931-35.	1937.
				Per cent.	Per cent.	Per cent.
British	105,220	— 10,390	411	81.12	— 95.44	— 7.90
French	102	87	4	0.08	0.80	0.08
German	1,211	152	410	0.93	1.40	7.88
Greek	1,802	— 194	1,164	1.39	— 1.78	22.37
Italian	10,553	1,523	1,815	8.14	13.99	34.88
Yugoslavian .. .	2,146	— 39	439	1.65	— 0.36	8.44
United States ..	815	— 54	292	0.63	— 0.50	5.61
Other European ..	8,354	— 431	1,248	6.44	— 3.96	23.99
Total European ..	130,203	— 9,346	4,961	100.38	— 85.85	95.35
Chinese	— 1,864	— 1,263	48	— 1.44	— 11.61	0.92
Japanese	— 242	— 425	14	— 0.19	— 3.90	0.27
Indian and Cingalese	695	232	35	0.54	2.13	0.67
Other Non-European	915	— 84	145	0.71	— 0.77	2.79
Total Non-European	— 496	— 1,540	242	— 0.38	— 14.15	4.65
Total ..	129,707	— 10,886	5,203	100.00	— 100.00	100.00

Owing to the depressed conditions in Australia the gain by migration decreased rapidly during the years 1928 and 1929 and there were actual losses of population during the next three years. There was little variation in the figures for arrivals and departures from 1933 to 1936, but in 1937 the arrivals exceeded the departures by 5,203, the greatest gain to the population, by migration, since 1929. Migrants of Italian nationality showed the greatest net gain in numbers in the year 1937, followed by Greeks and Yugoslavians in that order. Over 81 per cent. of the net migration in 1926-30 consisted of persons of British nationality and the remaining 19 per cent. were other Europeans. In the following quinquennium, 1931-35, there was a loss by migration of persons of British nationality and a gain of those of Italian nationality. Non-Europeans, with the exception of Indians and Cingalese, also showed an excess of departures.

4. Classes of Arrivals and Departures.—Since 1st July, 1924, the arrivals and departures have been classified according to the declared intention of the migrant in

regard to intended residence. The figures for the quinquennial periods 1926-30 and 1931-35 and for the years 1935 to 1937 are as follows :—

MIGRANTS CLASSIFIED ACCORDING TO INTENDED RESIDENCE.—AUSTRALIA.

Classification.	1926-30.	1931-35.	1935.	1936.	1937.
Permanent new arrivals ..	224,010	54,444	12,608	12,653	16,291
Australian residents returning from abroad ..	121,395	84,554	20,307	21,749	25,198
Temporary visitors ..	125,029	100,325	22,501	25,492	28,313
Not Stated ..	46	..	..	..	..
Total Arrivals ..	470,480	239,323	55,416	59,894	69,802
Australian residents departing permanently ..	103,209	71,670	11,357	11,370	11,216
Departing temporarily ..	111,714	79,426	20,323	22,050	24,350
Temporary visitors ..	125,772	99,108	24,025	24,977	29,033
Not Stated ..	78	5	..	..	..
Total Departures ..	340,773	250,209	55,705	58,397	64,599

Permanent new arrivals have decreased very considerably since the year 1927, and the number for 1937, although showing an increase over the previous year, was only a little more than one half of the annual average for the decennium 1926-35. Permanent departures were far more numerous in the years 1928 to 1931 than in the earlier years of the period but decreased during the past six years, the number in 1937 being the lowest yet recorded. Up to and including 1929 there was a considerable gain of permanent residents, but during 1930 and 1931 there was a heavy loss. The loss was very much reduced in 1932, 1933 and 1934, whilst during the past three years there was actually a small gain in permanent residents.

The figures in the table above are based on the information supplied by travellers at the time of arrival or departure. For various reasons the intentions of travellers are subject to subsequent modification, and the figures quoted in the table must therefore be accepted as a record of intention only.

§ 12. Immigration.

(A) Assisted Migration into Australia.

1. **Joint Commonwealth and States' Scheme.**—In 1920 an arrangement was arrived at between the Commonwealth and State Governments whereby the Commonwealth became responsible for the recruiting and medical inspection of migrants, and for their transport to Australia. The State Governments advised the Commonwealth from time to time as to the numbers and classes of migrants they were prepared to receive, and became responsible for their subsequent settlement. In addition, personal and group nominations were accepted by the States, the nominators undertaking responsibility for their settlement and after care.

In 1930 on account of the financial and industrial depression it was decided to confine the grant of assisted passages to the wives and dependent children of men who arrived in the Commonwealth prior to the 1st January, 1930.

On the 4th March, 1938, the Commonwealth decided, in co-operation with the United Kingdom Government, to resume assisted migration, and provision has been made for the grant of assisted passages from the United Kingdom in favour of—

- (a) persons (relatives and friends) resident in the British Isles nominated by individuals or approved organizations;
- (b) migrants specially requisitioned for by any State; and

(c) persons of British stock resident in the United Kingdom, who would be in possession of—

(1) in the case of a married man, not less than £300 capital on arrival in Australia, or alternatively, a pension or other income of not less than £100 per annum;

(2) in the case of a single man not less than £50 capital on arrival.

It was also decided that the Commonwealth Government would co-operate with any State to the extent that the migration policy of that State coincided with the policy of the Commonwealth, provided that the Commonwealth would itself deal with nominations which did not fall within the ambit of the policy of any particular State, but which were acceptable under the Commonwealth policy.

2. Assisted Passage Rates.—The British and Commonwealth Governments jointly contribute towards the fares of approved migrants, the rates in operation being tabulated as under:—

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Migrant.	Fare Charged to Migrant. (a)	Amount of Assistance jointly contributed by British and Commonwealth Governments. (a)
	£ s. d.	£ s. d.
Married persons and widows or widowers accompanied by at least one child under 19 years (children at rate according to age) .. each	11 0 0	22 0 0
Married persons and widows or widowers without at least one child under 19 years each	16 10 0	16 10 0
Other adults, 19 years and over ..	16 10 0	16 10 0
Juveniles, 17 and under 19 years ..	11 0 0	22 0 0
Juveniles, 12 and under 17 years ..	5 10 0	27 10 0
Children under 12 years	Free	16 10 0

(a) The amounts quoted are in sterling.

The Commonwealth Government has also decided to make a grant of a passage money contribution equivalent to one-half of the tourist steamer fare from India to Australia in respect of retired British Army Officers and Civil Servants resident in India and Burma. This concession covers their wives and families.

Further information may be obtained from the Secretary, Department of the Interior, Canberra, Australian Capital Territory, or from the Official Secretary, High Commissioner's Office, Australia House, Strand, London, W.C.2.

3. Number of Persons Assisted.—The number of assisted migrants for the years 1929-1937 inclusive, and the total from the earliest years up to the end of 1937, are given in the following table:—

IMMIGRATION.—NUMBER OF PERSONS ASSISTED.

Persons Assisted during the year—	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australian Capital Territory.	Total.
1929	5,431	2,604	1,292	526	2,976	101	13	12,943
1930	1,174	468	484	61	471	20	5	2,683
1931	76	45	43	6	99	5	1	275
1932	21	3	23	..	123	5	..	175
1933	11	3	1	1	56	..	..	72
1934	11	4	1	..	143	..	..	159
1935	1	..	1	..	98	..	..	100
1936	4	2	1	..	2	..	..	9
1937	60	33	6	3	39	..	..	141
Total from earliest years to end of 1937..	345,894	255,347	236,002	115,821	86,545	24,957	67	1,064,633

(B) The Regulation of Immigration into Australia.

1. **Powers and Legislation of the Commonwealth.**—(i) *Constitutional.* Under Part V., Sec. 51, xxvii. and xxviii. of the Commonwealth Constitution Act, the Parliament of the Commonwealth is empowered to make laws with respect to immigration and emigration and the influx of criminals.

(ii) *Legislation.* A summary of the provisions of the Immigration Act 1901-1925 and the Contract Immigrants Act 1905 (excepting the provisions of the Amending Immigration Acts of 1920, 1924 and 1925, which will be found in Official Year Book, No. 21, p. 927), containing particulars regarding the admission of immigrants, prohibited immigrants, the liabilities of shipmasters and others, and kindred matters will be found in preceding Year Books (see Official Year Book, No. 12, pp. 1166 to 1168).

The Immigration Act 1930.—Under this Act it is provided that Section 5, subsection (1) of the Immigration Act 1901-1925 applies to any person who, since the commencement of the Immigration Restriction Act 1901, evaded an officer when entering Australia, or gained admission or re-admission by fraudulent means. Steps can be taken to deal with such persons as prohibited immigrants at any time after they have landed in Australia.

The Immigration Act 1932.—This Act provides (a) that any alien who fails to satisfy an officer that he holds a landing permit, or that his admission has been authorized, may be prohibited from landing; (b) for the increase of the period during which a person may be declared a prohibited immigrant from three to five years; (c) that a person not a British subject and who has been convicted of a crime of violence against the person may be deported pursuant to an order of the Minister without his being subjected to a dictation test; (d) for the deportation of a person who has been convicted of a criminal offence or who has become an inmate of an insane asylum or public charitable institution within five years from the date of arrival instead of three years as hitherto; and (e) that where the wife of a person whom it is proposed to deport so desires, her name and the names of her dependent children may be included in her husband's deportation order. This would of course apply only to wives and children who were themselves immigrants.

The Immigration Act 1933.—This Act provides that Section 8A, as amended by the Immigration Act 1932—see (d) above—shall apply to persons who arrived in Australia since the commencement of the Section, i.e., since 2nd December, 1920. It also makes statutory provision for the taking of securities for compliance with the provisions of the Act.

The Immigration Act 1935.—The main purpose of this Act was to add a penalty clause to Section 5 of the principal Act, to overcome a legal difficulty which had arisen in regard to relying on Section 7 for the imposition of penalties on persons convicted under Section 5 on charges of being prohibited immigrants offending against the Act.

2. **Conditions of Immigration into Australia.**—(i) *Immigration of Non-European or Coloured Persons.* In pursuance of the "White Australia" policy, the general practice is not to permit Asiatics or other coloured immigrants to enter Australia for the purposes of settling permanently.

There are special arrangements with India, Japan and China under which facilities are afforded for subjects of those countries who are bona fide merchants, students, or tourists to enter and remain in Australia under exemption whilst they retain their status.

(ii) *Immigration of White Aliens.* Aliens seeking to enter Australia for permanent residence are required to obtain landing permits or special authority for admission from the Department of the Interior. The classes in respect of whom landing permits will, in ordinary circumstances, be favourably considered are as follows:—

- (a) Dependent relatives of persons already settled in Australia, subject to satisfactory guarantees for maintenance. *Note.*—The term "dependent relatives" includes wives, children under 21 years of age, adult single daughters and sisters, parents and fiancées.)

- (b) Aliens outside the category of dependent relatives who (i) are nominated by persons in Australia guaranteeing to the satisfaction of the Minister that the nominees will not be allowed to become a charge upon the State; (ii) will engage in trades and occupations in which there is opportunity for their absorption without detriment to Australian workers; and (iii) are in possession of £50 (Australian) landing money.
- (c) Aliens without guarantors in Australia who will engage in trades and occupations in which there is opportunity for their absorption without detriment to Australian workers, provided also that they are in possession of £200 (Australian) landing money.

Aliens seeking to enter Australia are also required to hold valid national passports *visaed* by a British Consul for travel to Australia except in cases where visa requirements have been abolished by reciprocal arrangements to which the Commonwealth Government is a party. The exemptions so far apply to nationals of the following countries, viz.:—Belgium, Czechoslovakia, Denmark, France, Germany (including Austria), Italy, Liechtenstein, Netherlands, Norway, Portugal, Spain, Sweden and Switzerland.

(iii) *General Information.* General information as to conditions of entry into Australia may be obtained from the following offices:—

- (a) In Australia: The Secretary, Department of the Interior, Canberra, A.C.T., Australia; (b) In Great Britain: The Official Secretary, High Commissioner's Office, Australia House, Strand, London, England; (c) In the United States of America: The Australian Government Trade Commissioner in the United States of America, "Cunard Building," 25 Broadway, New York City, U.S.A.

3. *Persons Admitted Without Dictation Test.*—The following table shows the number and nationality of persons admitted during the year 1937 without passing the dictation test. Persons who are permitted to land pending transhipment to another country are not included:—

PERSONS ADMITTED WITHOUT DICTATION TEST.—NATIONALITIES,
AUSTRALIA, 1937.

Nationality or Race.	1937.	Nationality or Race.	1937.
Albanian	325	United States of America ..	2,235
Belgian	62	Other Whites	155
British	56,010	American Negro	9
Bulgarian	66	ASIATICS—	
Czechoslovakian	122	Afghan	1
Danish	83	Chinese	806
Dutch	278	Filipino	8
Estonian	43	Japanese	445
Finns	92	Javanese	8
French	629	Koepangers	47
German	986	Malays	37
Greek	1,402	Natives of India and Ceylon ..	136
Hungarian	61	Palestinian	61
Italian	2,623	Syrian	73
Maltese (British)	100	OTHER RACES—	
Norwegian and Swedish ..	35	Maoris	1
Polish	572	Pacific Islanders	19
Russian	184	Papuan	158
Spanish	45	Other and Unspecified	27
Swiss	140	Total	68,737
Yugoslavian	653		

4. **Departures of Persons of Non-European Races.**—The following figures in common with the other statistics in this sub-section have been compiled by the Department of the Interior and are exclusive of transshipments. They are not therefore in agreement with departures, compiled in this Bureau and published elsewhere, which include transshipments. The number of persons of non-European races who left Australia during the year 1937 was 1,764, distributed among the various nationalities as follows:—Afghans, 1; American Negroes, 12; Arabs, 1; Chinese, 786; Filipinos, 43; Natives of India and Ceylon, 154; Japanese, 417; Javanese, 10; Koepangers, 10; Malays, 71; Pacific Islanders, 39; Papuans, 200; and others, 20.

(C) Passports.

Provision is made in the Immigration Act 1901–1935 for the production of passports by all persons over 16 years of age who desire to enter Australia. Under the Passports Act 1920, it was compulsory also for all persons over 16 years of age to be in possession of a passport or other document authorizing his departure. This Act has now been superseded by the Passports Act 1938, which has dropped the compulsory provisions and is now simply a machinery measure governing the issue of passports and the grant of other passport facilities. The Act extends to the Territories of the Commonwealth, including Papua, Norfolk Island and the Mandated Territory of New Guinea.

Although it is no longer compulsory to be in possession of a passport when leaving Australia, it is very desirable in their own interests that Australians proceeding abroad should provide themselves with a passport as a means of establishing their identity and nationality. The possession of a passport is necessary for admission into most countries overseas, and the holder of an Australian passport also has no difficulty in landing on return to the Commonwealth. The charge for an Australian passport is £1; for an ordinary visa 8s. and for a transit visa, 2s.

Holders of Australian passports do not require to obtain foreign Consular visas for travel to the following countries:—Belgium, Cuba, Czechoslovakia, Danzig, Denmark, Dominican Republic, France (including French Colonies, but not Syria), Germany, Italy, Luxembourg, Morocco, Netherlands (including Netherlands East Indies), Norway, Portugal, Spain, Sweden and Switzerland.

§ 13. Naturalization.

1. **Commonwealth Legislation.** Naturalization in Australia is governed by the Nationality Act 1920–1930. The qualifications necessary for naturalization are:—(a) Residence in Australia continuously for not less than one year immediately preceding application for naturalization and previous residence either in Australia or in some other part of His Majesty's dominions for a period of four years within the last eight years before the application; (b) good character and an adequate knowledge of the English language; and (c) intention to settle in the British Empire.

The amending Act of 1930 provided for the charge of a prescribed fee for a Certificate of Naturalization. The fee is £5, except in the case of a certificate granted to a woman who was a British subject prior to her marriage to an alien, in which case the amount is 5s. An applicant who served with a good record in the Commonwealth Naval or Military Forces during the Great War 1914–1918 is exempt from payment of any fee.

The amending Act of 1930 provided for certain alterations in the law dealing with the national status of married women, and vested in the Minister for the Interior certain powers and functions hitherto exercised by the Governor-General.

The amending Act, which came into operation on 1st April, 1937, provided for the following exceptions of the general principle that the wife of a British subject shall be deemed to be a British subject, and the wife of an alien deemed to be an alien:—

- (a) a woman who was a British subject prior to her marriage to an alien does not cease to be a British subject unless by reason of her marriage she acquires her husband's nationality;

- (b) if a man, during the continuance of his marriage, ceased to be a British subject his wife does not lose her British nationality unless she acquires her husband's new nationality;
- (c) if a man, during the continuance of his marriage ceased to be a British subject and his wife acquires his new nationality she may within one year from the date of which she acquired her husband's new nationality, or within such further time as the Minister in special circumstances allows, make a declaration that she desires to retain her British nationality;
- (d) if after 31st March, 1937, a certificate of naturalization is granted to an alien his wife, if she is not already a British subject, shall not be deemed to be a British subject, unless within one year from the date of such certificate, or within such further time as the Minister in special circumstances allows, she makes a declaration that she desires to acquire British nationality.
- (e) where an alien is a subject of a State at war with His Majesty, his wife, if she was a natural born British subject, may upon making a declaration that she desires to resume British nationality be granted a certificate of naturalization.

Provision was also made in the amending Act whereby a woman who was a British subject prior to her marriage and who acquired her husband's nationality may make a declaration that she desires to retain while in Australia or in a Territory to which the Act applies the rights, powers and privileges of a British subject.

A summary of the main provisions of the Principal Act will be found in Official Year Book No. 22, pp. 934-935.

2. **Certificates Granted.**—(i) *Australia.* Particulars regarding the previous nationalities of the recipients of certificates of naturalization issued under the Act during the year 1937, and the countries from which such recipients had come, are given in the following table :—

NATURALIZATION.—CERTIFICATES GRANTED, 1937.

Previous Nationalities of Recipients.				Countries from which Recipients of Commonwealth Certificates had come.			
Nationality.	Certificates Granted.	Nationality.	Certificates Granted.	Country.	Certificates Granted.	Country.	Certificates Granted.
Albanian ..	16	Lithuanian ..	2	Albania ..	11	Italy ..	352
American, U.S. ..	14	Norwegian ..	22	America ..	23	Jugoslavia ..	6
Belgian ..	2	Palestinian ..	7	Austria ..	1	Latvia ..	3
Bulgarian ..	9	Polish ..	45	Great Britain ..	67	Norway ..	5
Chinese ..	1	Rumanian ..	3	Belgium ..	5	Palestine ..	17
Czechoslovakian ..	16	Russian ..	53	Bulgaria ..	7	Poland ..	25
Danish ..	24	Spanish ..	17	China ..	25	Rumania ..	1
Dutch ..	18	Swedish ..	22	Czechoslovakia ..	5	Russia ..	14
Estonian ..	17	Swiss ..	29	Denmark ..	13	South America ..	5
Finnish ..	13	Syrian ..	10	Egypt ..	27	Spain ..	12
French ..	18	Other Nationals ..	8	Estonia ..	12	Sweden ..	6
German ..	a 106			Finland ..	9	Switzerland ..	16
Greek ..	146	Total ..	1,023	France ..	43	Syria ..	8
Hungarian ..	3			Germany ..	74	Other Countries ..	116
Italian ..	339			Greece ..	103		
Jugoslav ..	58			Holland ..	5		
Latvian ..	5			Hungary ..	3	Total ..	1,023

(a) Including Austrian.

(ii) *States.* The certificates of naturalization granted in 1937 were issued in the various States as follows:—New South Wales, 336; Victoria, 231; Queensland, 220; South Australia, 91; Western Australia, 134; Tasmania, 5; Northern Territory, 5; and the Australian Capital Territory, 1; Total, 1,023.

§ 14. Population of Territories.

At the Census of the 30th June, 1933, special arrangements were made to obtain complete and uniform information concerning each of the six Territories of Australia including the Mandated Territories of New Guinea and Nauru, viz.:—(1) Northern Territory; (2) Australian Capital Territory; (3) Norfolk Island; (4) Papua; (5) Mandated Territory of New Guinea; and (6) Mandated Territory of Nauru.

A summary of the figures as to the population and number of dwellings in each Territory at the Census of 1933 is given in the following table:—

POPULATION AND DWELLINGS.—TERRITORIES, 30th June, 1933.

(EXCLUSIVE OF INDIGENOUS POPULATION.)

Territory.	Population.			Dwellings.			
	Males.	Females.	Persons.	Occu- pied.	Unoccu- pied.	Being Built.	Total.
Northern Territory ..	3,378	1,472	4,850	1,301	55	1	1,357
Australian Capital Territory ..	4,805	4,142	8,947	1,995	103	5	2,103
Norfolk Island ..	662	569	1,231	383	34	6	423
Papua ..	1,232	941	2,173	683	35	1	719
Territory of New Guinea (Mandate) ..	3,709	1,507	5,216	1,776	26	7	1,809
Nauru (Mandate) ..	1,037	64	1,101	81	13	..	94

Particulars concerning the indigenous populations of the Territories of the Commonwealth are included in Chapter XII. of this issue.

A Census was taken in the Australian Capital Territory on 30th June, 1938, and the results were as follows:—

Population: Males, 6,286; Females, 5,276; Total, 11,562.

Occupied Dwellings: 2,477.

Since the 1933 Census the population had increased by 29 per cent. and the number of occupied dwellings by 24 per cent.

§ 15. The Aboriginal Population of Australia.

In Official Year Book No. 17, pp. 951 to 961, a brief account was given of the Australian aboriginal population, its origin, its numbers as estimated from time to time, and the steps taken for its protection. On pages 914 to 916 of Official Year Book No. 22 particulars are shown for each of the States and Territories of Australia at successive periods, while a special article dealing with the estimated number and distribution of the native population at the date of first settlement of the white race in the continent appeared on pages 687-696 of Official Year Book No. 23.

The aborigines are scattered over the whole of the mainland, but the majority are concentrated in Western Australia, Queensland and the Northern Territory. At a Census of aborigines taken on the 30th June, 1937, the following particulars were disclosed:—

ABORIGINAL CENSUS.—30th June, 1937.

State or Territory.	Full-blood.					Half-caste.					Total Full-blood and Half-caste.
	Noma-dic.	In Employ-ment.	In Super-vised Camps. (a)	Other.	Total.	Noma-dic.	In Employ-ment.	In Super-vised Camps. (a)	Other.	Total.	
New South Wales	63	278	314	194	849	644	2,345	3,199	3,566	9,754	10,603
Victoria ..	..	20	25	8	53	6	126	168	346	646	699
Queensland ..	1,637	3,701	5,725	1,049	12,112	43	1,779	2,054	2,036	5,912	18,024
South Australia ..	1,057	370	85	222	1,734	863	358	662	220	2,103	3,837
Western Australia	15,043	4,713	1,287	1,075	22,118	1,017	1,036	1,102	1,054	4,209	26,327
Tasmania ..	..	..	..	1	1	..	6	..	303	309	310
Northern Territory	8,727	2,914	3,974	353	15,968	7	435	362	115	919	16,887
Australian Capital Territory ..	..	..	..	..	..	..	62	36	..	98	98
Australia ..	26,527	11,996	11,410	2,902	52,835	2,580	6,147	7,583	7,640	23,950	76,785

(a) This figure does not include those living in supervised camps who were in regular employment.

§ 16. The Chinese in Australia.

In Official Year Book No. 18, pp. 951 to 956, a brief historical sketch was given regarding "The Chinese in Australia."

§ 17. The Pacific Islanders in Australia.

In Official Year Book No. 19, pp. 902-3, a brief account was given of the introduction of Kanakas into Australia.

CHAPTER XIV.

VITAL STATISTICS.

§ 1. Live Births.

1 Number in 1937.—The number of live births registered in Australia during the year ended the 31st December, 1937, is shown in the table hereunder. The numerical relation which these births bear to the population, and various other associated features, are given in later tables.

LIVE BIRTHS, 1937.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	A.C.T.	Australia.
MALES.									
Single births	23,700	14,859	9,640	4,524	4,314	2,424	50	98	59,609
Twins ..	510	342	182	81	102	57	1	4	1,279
Triplets ..	2	5	..	6	..	1	..	..	14
Quadruplets	..	3	..	..	..	..	..	..	3
Total ..	24,212	15,209	9,822	4,611	4,416	2,482	51	102	60,905

FEMALES.

Single births	22,785	14,206	9,139	4,293	4,109	2,304	47	103	56,986
Twins ..	494	312	201	81	84	53	1	2	1,228
Triplets ..	6	3	..	..	..	2	..	..	11
Quadruplets	..	1	..	..	..	..	..	..	1
Total ..	23,285	14,522	9,340	4,374	4,193	2,359	48	105	58,226

TOTAL.

Single births	46,485	29,065	18,779	8,817	8,423	4,728	97	201	116,595
Twins ..	(a) 1,004	(b) 654	(c) 383	162	(d) 186	(d) 110	2	6	(e) 2,507
Triplets ..	(f) 8	(f) 8	..	6	..	3	..	..	(g) 25
Quadruplets	..	4	..	..	..	..	..	..	4
Total ..	47,497	29,731	19,162	8,985	8,609	4,841	99	207	119,131

TOTAL CONFINEMENTS (LIVE BIRTHS.)

Mothers of Nuptial Children ..	44,924	28,179	18,063	8,593	8,179	4,566	81	200	112,785
Mothers of Ex-Nuptial Children ..	2,090	1,226	909	307	340	221	17	4	5,114
Total Mothers	47,014	29,405	18,972	8,900	8,519	4,787	98	204	117,899

(a) 48 stillborn twins not included. (b) 18 stillborn twins not included. (c) 3 stillborn twins not included. (d) 6 stillborn twins not included. (e) 81 stillborn twins not included. (f) 1 stillborn triplet not included. (g) 2 stillborn triplets not included.

A summary of the total number of live births in each State and Territory at intervals since 1901 is given in the following table :—

LIVE BIRTHS—SUMMARY, 1901 to 1937.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	A.C.T.	Australia.
1901 ..	37,875	31,008	14,303	9,079	5,718	4,930	32	(a)	102,945
1911 ..	47,537	33,026	16,984	11,057	8,091	5,437	31	30	122,193
1921 ..	54,636	35,591	20,329	11,974	7,807	5,755	79	27	136,198
1931 ..	47,721	30,332	17,833	9,079	8,549	4,762	72	161	118,509
1932 ..	44,895	27,464	17,367	8,521	7,965	4,491	79	151	110,933
1933 ..	44,195	28,392	17,150	8,900	7,874	4,553	74	131	111,269
1934 ..	43,335	27,828	17,360	8,459	7,801	4,470	88	134	109,475
1935 ..	44,676	27,884	17,688	8,270	8,119	4,456	84	148	111,325
1936 ..	46,193	28,883	18,755	8,911	8,479	4,581	113	158	116,073
1937 ..	47,497	29,731	19,162	8,985	8,609	4,841	99	207	119,131

(a) Part of New South Wales.

2. Birth Rates.—The next table gives the crude birth rates at intervals from 1901 to 1937 :—

CRUDE BIRTH RATES.(a)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	A.C.T.	Australia
1901 ..	27.78	25.77	28.52	25.41	30.39	28.58	6.72	(b)	27.16
1911 ..	28.58	25.01	27.63	28.86	28.22	28.60	9.36	16.84	27.20
1921 ..	25.91	23.16	26.68	24.09	23.37	26.97	20.18	10.86	24.95
1925 ..	23.79	21.49	24.24	21.22	21.95	24.21	16.98	9.77	22.86
1926 ..	22.63	20.84	23.06	20.73	21.79	23.33	18.50	12.07	21.98
1927 ..	22.40	20.30	22.78	20.33	21.63	22.68	15.28	10.31	21.62
1928 ..	22.27	19.69	22.36	19.98	21.36	21.77	18.61	14.64	21.27
1929 ..	21.04	18.98	20.60	18.63	21.51	22.03	11.86	17.91	20.25
1930 ..	20.59	18.55	20.80	17.42	21.44	21.66	14.26	18.30	19.86
1931 ..	18.67	16.86	19.28	15.77	19.77	21.18	14.52	18.29	18.16
1932 ..	17.40	15.19	18.56	14.74	18.31	19.78	16.07	16.92	16.86
1933 ..	16.99	15.60	18.14	15.32	17.95	19.93	15.23	(c)14.47	16.78
1934 ..	16.52	15.20	18.17	14.50	17.66	19.51	17.84	(c)14.47	16.39
1935 ..	16.89	15.16	18.31	14.14	18.23	19.41	16.47	(c)15.77	16.55
1936 ..	17.31	15.63	19.17	15.17	18.84	19.84	21.50	(c)16.18	17.13
1937 ..	17.63	16.02	19.36	15.25	18.95	20.69	18.30	(c)20.30	17.43

(a) Number of births per 1,000 of the mean population for the year. (b) Part of New South Wales. (c) See footnote (c) to table on p. 317. The following are revised rates :—1933, 14.43; 1934, 14.20; 1935, 15.20; 1936, 15.35; and 1937, 18.00.

NOTE.—The birth rates in the above table are based on live births registered in the respective States and Territories. About 20 per cent. of births in respect of which the mother's usual residence is the Australian Capital Territory take place in Queanbeyan just over the New South Wales border, while the number of births in respect of which the mother's usual residence is New South Wales which take place in the Australian Capital Territory is practically negligible. Consequently the following rates based on births in respect of which the mother's usual residence is the Australian Capital Territory are a fairer measure of birth rates in the Australian Capital Territory :—

1923 ..	11.79	1926 ..	22.41	1929 ..	23.28	1932 ..	20.09	1935 ..	19.52
1924 ..	17.26	1927 ..	21.10	1930 ..	22.07	1933 ..	19.06	1936 ..	17.97
1925 ..	20.87	1928 ..	23.38	1931 ..	21.40	1934 ..	17.59	1937 ..	21.28

The variations similarly caused in the birth rates for the States and Northern Territory by referring the birth registrations to the State or Territory in which the mother was usually resident are not so great as in the Australian Capital Territory, as shown by the following corrected rates for 1937 :—New South Wales, 17.75; Victoria, 15.88; Queensland, 19.29; South Australia, 15.16; Western Australia, 18.95; Tasmania, 20.82; and Northern Territory, 19.22.

The preceding table shows a marked reduction in the birth rate since 1901. In the earlier years of the century the rate fluctuated somewhat and 28.60 was recorded in 1912, but from that year onwards the rate dropped almost continuously to the very low figure of 16.39 in 1934. Thereafter with the improvement in economic conditions the rate has risen slightly during each of the last three years.

The principal factor in determining the crude birth rate is the proportion of married women of child-bearing age in the community, but as the fecundity of women varies with age, the birth rate per 1,000 married women will vary according to the age composition of the group, and, other things being equal, the rate generally should be highest where the average age of married women is lowest. For the purposes of the following table the child-bearing age has been taken as from 15-44 years inclusive, and all births of which the mothers were stated to be over 45 years have been counted in the group 40-44. The calculations have been made for the last two Census periods and cover in each case the Census year together with the year immediately preceding and the year immediately following.

BIRTH RATES, AND FACTORS AFFECTING THEM.

Particulars.	1932-34. (Age Distribution at Census of 1933.)							1920- 1922.
	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aus- tralia.	Aus- tralia.
Crude birth rate per 1,000 persons	16.97	15.33	18.29	14.85	17.97	19.74	16.68	25.15
Birth rate per 100 women 15-44 inclusive	7.25	6.46	7.93	6.31	8.05	8.71	7.14	10.74
Birth rate per 100 married women 15-44 incl. (a)	12.98	12.34	14.46	12.01	14.67	16.08	13.14	19.65
Ex-nuptial births—per cent. on all births	5.03	4.35	4.99	3.18	4.15	5.37	4.66	4.69
Ex-nuptial births per 100 unmarried women 15-44 incl.	0.78	0.56	0.83	0.41	0.70	0.96	0.69	1.05
Women 15-44 incl.—per cent. all persons	23.41	23.73	23.05	23.54	22.34	22.66	23.35	23.41
Average age of all women 15-44 incl.	29.06	29.42	28.88	29.12	28.62	28.54	29.10	28.54
Married women 15-44 incl.—per cent. on all persons	12.41	11.88	12.02	11.97	11.74	11.61	12.10	12.20
Average age of married women 15-44 incl.	33.38	34.00	33.41	33.98	33.21	32.98	33.58	32.48

(a) Nuptial births only.

The following figures give a comparison for Australia, based on data obtained at Census periods, of the total births per 1,000 women (married and unmarried) and of the nuptial births per 1,000 married women of ages 15 to 44 years inclusive:—

Particulars.	1880-82.	1890-92.	1900-02.	1910-12.	1920-22.	1932-34.
Births per 1,000 women aged 15-44	160.7	158.8	117.3	117.2	107.4	71.4
Nuptial births per 1,000 married women 15-44	321.0	332.0	235.8	236.0	190.5	131.4

3. *Birth Rates of Various Countries.*—(i) *Crude Rates.* A comparison with other countries for the year 1936, the latest year for which complete figures are available, shows that the Australian States occupy a midway position. The rates for the pre-war period 1908–1913 have been added for purposes of comparison:—

CRUDE BIRTH RATES.(a)—VARIOUS COUNTRIES.

Country.	1908 to 1913.	1936.	Country.	1908 to 1913.	1936.
Soviet Union ..	45.6	42.7(c)	Western Australia ..	28.9	18.8
Egypt ..	43.6	41.8	Finland ..	29.5	18.1
Ceylon ..	36.9	33.5	Scotland ..	26.2	17.9
Rumania ..	43.1	31.5	Denmark ..	27.1	17.8
Japan ..	32.9	29.9	Czechoslovakia ..	31.1	17.4
Portugal ..	34.6	28.3	New South Wales ..	28.2	17.3
Poland ..	37.4	26.2	Australia ..	27.4	17.1
Spain ..	32.1	25.6(d)	U.S. of America ..	(b)	16.7(d)
Argentine Republic ..	37.1	24.4	New Zealand ..	26.5	16.6
Union of South Africa (Europeans) ..	(b)	24.2	Victoria ..	25.3	15.6
Italy ..	32.4	22.4	Switzerland ..	24.7	15.6
Canada ..	(b)	20.0	Great Britain and North Ireland ..	24.6	15.3
Netherlands ..	29.1	20.1	Belgium ..	23.4	15.2
Northern Ireland ..	23.1	20.0	South Australia ..	27.1	15.2
Tasmania ..	29.6	19.8	France ..	19.5	15.0
Ireland (Eire) ..	23.1	19.6	England and Wales ..	24.9	14.8
Queensland ..	28.2	19.2	Norway ..	26.0	14.8
Germany ..	29.5	19.0	Sweden ..	24.4	14.2

(a) Number of births per 1,000 of the mean population. (b) Not available. (c) For 1932.
(d) For 1935.

(ii) *Nuptial Birth Rates at Child-bearing Ages.* The wide discrepancies between the crude birth rates of the various countries are, to some extent, due to differences in sex and age constitution and in conjugal condition. If the birth rates are calculated per 1,000 women of child-bearing ages, the comparison gives more reliable results. A table of results so calculated for the period 1900 to 1915 or thereabouts appeared in Year Book No. 22, p. 941, and showed that Australia, with a rate of 108 nuptial births per 1,000 married women aged 15 to 40 years, was midway between the maximum and minimum of the countries for which these rates were obtained.

4. *Masculinity of Live Births.*—(i) *General.* The masculinity of live births, i.e., the number of males per 100 females, varies considerably from State to State and from year to year. For 1937 the figures ranged from 103.98 in New South Wales to 105.42 in South Australia. The averages for the last inter-censal period, 1921 to 1933, were as follows:—New South Wales 105.33, Victoria, 100.10, Queensland 105.34, South Australia 105.08, Western Australia 105.66, Tasmania 105.59, Australia 105.57. The following table shows the figures for Australia at intervals since 1901:—

MASCUINITY(a) OF LIVE BIRTHS REGISTERED, AUSTRALIA.

Particulars.	1901.	1911.	1921.	1931.	1934.	1935.	1936.	1937.
Total Births ..	104.11	104.73	105.86	106.15	104.14	104.52	104.79	104.60
Ex-nuptial Births ..	105.50	103.10	106.09	102.60	105.72	107.14	101.81	103.83

(a) Number of male per 100 female births.

(ii) *Masculinity of Nuptial and Ex-nuptial Births—Various Countries.* A table showing the masculinity of nuptial and ex-nuptial births for various countries appeared on p. 942 of Official Year Book No. 22.

5. *Ex-nuptial Live Births.*—(i) *General.* The number of ex-nuptial live births reached its maximum 7,438, in 1913, but it has since fallen considerably. On the average during the five years 1910–1914 the number of ex-nuptial live births in Australia was 7,171, while for the period 1933–1937 it was only 5,071, a decline of 29.3 per cent., whereas the annual average total live births for the same period declined by 12.1 per cent., from 129,156 to 113,455 : hence a comparison between the results for these two periods shows that the proportion of ex-nuptial births has fallen from 5.55 to 4.47 per cent. of all births.

The numbers of births and the rates at intervals from 1901 to 1937 are shown below :—

EX-NUPTIAL LIVE BIRTHS AND BIRTH RATES, AUSTRALIA.

Particulars.	1901.	1911.	1921.	1931.	1934.	1935.	1936.	1937.
Number of Ex-Nuptial Births ..	6,165	7,074	6,463	5,841	4,925	4,901	5,126	5,163
Percentage of Total Births ..	5.99	5.79	4.75	4.93	4.50	4.40	4.42	4.33

It is, of course, possible that the number of ex-nuptial births is somewhat understated owing to diffidence in proclaiming the fact of ex-nuptiality, and it is not unlikely that the majority of unregistered births are ex-nuptial.

The variations of the ex-nuptial birth rates as between the individual States and Territories for 1937 are as follows :—

EX-NUPTIAL LIVE BIRTHS AND BIRTH RATES, 1937.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	A.C.T.	Australia
Number..	2,105	1,234	919	312	347	224	18	4	5,163
Percentage of Total Births	4.43	4.15	4.80	3.47	4.03	4.63	18.18	1.93	4.33

(ii) *Rate of Ex-nuptiality.* A further comparison is obtained by calculating the number of ex-nuptial births per thousand of the single and widowed female population between the ages of 15 and 45 years. The number of ex-nuptial births per 1,000 unmarried women of ages 15 to 45 has been found to be as follows :— Years 1880–82, 14.49 ; 1890–92, 15.93 ; 1900–02, 13.30 ; 1910–12, 12.53 ; and 1920–22, 10.50. The estimated number for the years 1930–32 was 7.87. The comparative results for various countries given on p. 944 of Official Year Book No. 22 were taken from the *Annuaire International de Statistique*, Vols. II, and V., and showed that ex-nuptial births varied from 38 per 1,000 unmarried women aged 15 to 49 years in Hungary to 4 in Ireland and Bulgaria. The rate for Australia was 12 per thousand of the average for the years 1906–15.

(iii) *Comparison of Rates.* The following table showing the relative proportions of ex-nuptial and nuptial births to the total population discloses a much greater proportional reduction in the ex-nuptial birth rate than in the nuptial rate :—

CRUDE EX-NUPTIAL, NUPTIAL, AND TOTAL BIRTH RATES.(a)—AUSTRALIA.

Rates.	1901.	1911.	1921.	1931.	1934.	1935.	1936.	1937.
Ex-nuptial ..	1.63	1.57	1.18	0.90	0.74	0.73	0.76	0.75
Nuptial ..	25.53	25.63	23.77	17.26	15.65	15.82	16.37	16.68
Total ..	27.16	27.20	24.95	18.16	16.39	16.55	17.13	17.43

(a) Number of births per 1,000 of mean population.

6. *Legitimations.*—In the several States Acts have been passed to legitimize children born before the marriage of their parents, provided that no legal impediment to the marriage existed at the time of birth. On registration in accordance with the provisions of the Legitimation Acts, any child who comes within the scope of their intentions, born before or after the passing thereof, is deemed to be legitimate from birth by the post-natal union of its parents, and entitled to the status of offspring born in wedlock. During 1936, 832 children were legitimized in Australia.

7. *Multiple Births.*—Among the total number of 119,131 live births registered in Australia in 1937, there were 116,505 single births, 2,507 twins, 25 triplets and 4 quadruplets. The number of cases of twins was 1,204, of triplets 9, and of quadruplets 1, there being 81 stillborn twins, and 2 stillborn triplets. The total number of mothers was, therefore 117,899, the proportion of mothers of twins being one in every 91, of mothers of triplets one in every 13,100, and of mothers of all multiple births one in every 60 mothers. Multiple births occurred in 1.11 per cent. of confinements.

The proportion of multiple births to total births does not vary greatly from year to year and exhibits no tendency towards increase or decrease :—

MULTIPLE BIRTHS.—AUSTRALIA.

Particulars.	1911.	1921.	1931.	1934.	1935.	1936.	1937.
Mothers of Multiple Births	1,236	1,465	1,271	1,171	1,157	1,229	1,304
Percentage on Total Mothers	1.02	1.09	1.08	1.08	1.05	1.07	1.11
Number of Mothers to each Multiple Birth ..	98	92	92	93	95	94	90

8. *Ages of Parents.*—The relative ages of the parents of children registered in 1937 have been tabulated separately for male and female births, multiple births being distinguished from single births. For total births and for multiple births the relative

single ages of parents are shown in Australian Demography Bulletin, No. 55, published by this Bureau. In the present work the exigencies of space allow the insertion of a table showing the relative ages of parents of all births in groups of five years only:—

AGES OF PARENTS.—AUSTRALIA, 1937.

Ages of Fathers and Type of Birth.		Total.	Ages of Mothers.								Un- spec- ified.
			Under 15.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 and upwards.	
Under 20	{ Single Twins	709 3	I ..	483 I	209 2	15 ..	I ..	.. ..	.. ..	.. ..	..
20 to 24	{ Single Twins	14,475 112	.. ..	3,289 19	9,365 77	1,665 15	131 I	20 ..	3 ..	.. ..	..
25 to 29	{ Single Twins Triplets	32,371 282 4	.. .. ..	1,580 18 I	13,911 102 2	14,520 129 ..	2,123 28 I	213 5 ..	19	I	..
30 to 34	{ Single Twins Triplets	29,058 355 I	.. .. ..	398 6 ..	4,863 40 ..	12,555 131 ..	9,750 153 I	1,373 25 ..	114	3	I
35 to 39	{ Single Twins Triplets	18,781 253 3	.. .. ..	119 2 ..	1,405 9 ..	4,226 55 ..	7,154 105 2	5,298 77 I	571 5 ..	8	..
40 to 44	{ Single Twins	9,402 139	.. ..	25 ..	337 3	1,057 7	2,384 40	3,807 60	1,751 28	41 I	..
45 to 49	{ Single Twins Triplets	4,440 58 I	.. .. ..	12	118 I ..	397 3 ..	793 11 I	1,604 26 ..	1,335 15 ..	181 2 ..	..
50 to 54	{ Single Twins Quad- ruplets	1,576 32 I	.. .. ..	6	58	130 2 ..	277 9 ..	462 13 ..	517 8 ..	125	I
55 to 59	{ Single Twins	496 4	.. ..	2 ..	19 ..	41 I	90 I	153 2	145 ..	46 ..	..
60 to 64	{ Single Twins	150 2	.. ..	I ..	10 ..	7 ..	22 I	55 ..	43 I	12 ..	..
65 and Upwards	{ Single Twins	73 I	.. ..	.. ..	3 ..	9 ..	13 ..	29 I	17 ..	I ..	I
Unspec- ified	Single	3	..	I	..	..	I	I	..	..	..
Mothers of Nuptial Children	{ Single Twins	111,534 1,241	.. ..	8 5,916 46	30,298 234 2	34,622 343 ..	22,739 349 5	13,015 209 I	4,515 57 ..	418 3 ..	3
	{ Quad- ruplets	1 ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	I ..	.. ..	..
	Total	112,785	..	8 5,963	30,534	34,965	23,093	13,225	4,573	421	3
Mothers of Ex- Nuptial Children	{ Single Twins	5,061 53	.. ..	26 1,364 9	1,833 19 ..	851 7 ..	474 11 ..	347 5 ..	132 2 ..	26	8
	{ Total	5,114	..	26 1,373	1,852	858	485	352	134	26	8
	Total	116,595	..	34 7,280 55	32,131 253 2	35,473 350 ..	23,213 360 5	13,362 214 I	4,647 59 ..	444 3 ..	11
Total Mothers	{ Single Twins Triplets Quad- ruplets	1,294 9 I	.. .. ..	.. .. ..	.. .. ..	.. .. ..	.. .. ..	.. .. ..	I .. ..	.. .. ..	..
Total	..	117,899	34	7,336	32,386	35,823	23,578	13,577	4,707	447	11

9. Birthplaces of Parents.—The birthplaces of the parents of children whose births were registered during the year 1937 will be found in Australian

Demography Bulletin No. 55, published by this Bureau. A summary of the results of the tabulation with the addition of the corresponding figures for 1911 follows:—

BIRTHPLACES OF PARENTS.—AUSTRALIA.

Birthplace.	Fathers.		Mothers of Nuptial Children.		Mothers of Ex-nuptial Children.	
	1911.	1937.	1911.	1937.	1911.	1937.
AUSTRALASIA—						
Australia	94,834	96,961	102,073	101,807	6,570	4,787
New Zealand	1,257	834	1,201	636	68	28
EUROPE—						
England and Wales ..	9,849	8,560	6,067	5,874	210	210
Scotland	2,289	2,350	1,486	1,690	46	37
Ireland (Eire)	2,138	851	1,374	536	46	9
Other British Possessions ..	49	143	20	87	1	2
Western Europe	607	170	165	70	9	..
Central Europe	1,185	335	606	223	8	3
Southern Europe	360	1,652	203	1,173	6	9
Eastern Europe	168	113	81	55	..	3
ASIA—						
British Possessions ..	217	166	114	99	2	..
Foreign Countries ..	317	150	139	112	3	3
AFRICA—						
British Possessions ..	111	198	116	169	2	7
Foreign Countries ..	11	15	13	21	..	..
AMERICA—						
Canada	59	97	34	57	3	2
Other British Possessions ..	8	8	5	3	..	..
United States of America ..	182	85	87	84	3	..
Other Foreign Countries ..	70	27	19	22	1	..
POLYNESIA—						
British	30	40	21	31	1	1
Foreign	39	17	13	16	6	3
At Sea and Indefinite ..	159	13	102	20	33	10
Total	113,939	112,785	113,939	112,785	7,018	5,114

10. Occupations of Fathers.—A summary of the main groups of occupations of the fathers of all nuptial children whose births were registered in 1921, 1931 and 1937, together with the percentage of each class on the total, is given in the following table:—

OCCUPATIONS OF FATHERS OF NUPTIAL CHILDREN.—AUSTRALIA.

Occupation Group.	Number of Fathers.			Percentage of Total.		
	1921.	1931.	1937.	1921.	1931.	1937.
				%	%	%
Agricultural, Pastoral, Mining, etc.	32,405	24,760	23,112	25.25	22.21	20.49
Industrial	53,567	49,902	23,497	41.74	44.76	20.83
Transport and Communication	15,351	12,302	10,047	11.96	11.04	8.91
Commercial	18,298	16,030	11,568	14.26	14.38	10.26
Professional	6,204	5,991	6,204	4.84	5.37	5.50
Domestic	2,319	2,146	1,918	1.81	1.93	1.70
Indefinite	182	349	236	0.14	0.31	0.23
Total	128,326	111,480	112,785	100.00	100.00	100.00

(a) Includes 36,121 (32.03 per cent.) clerks, labourers, etc., not specified as belonging to any industry, who were formerly included under "Commercial" or "Industrial".

11. *Mother's Age, Duration of Marriage, and Issue.*—(i) *General.* The total number of nuptial confinements resulting in live births in 1937 was 112,785, viz., 111,534 single births, 1,241 cases of twins, 9 cases of triplets, and 1 case of quadruplets. Ex-nuptial children, if previous issue by the same father, are included as previous issue, but children by former marriages and stillborn children are excluded. The tables cannot be given in detail but the following are their most salient features. The complete tabulations are shown in Australian Demography Bulletin No. 55, issued by this Bureau.

(ii) *Duration of Marriage and Issue of Mothers.* The following table shows that the duration of marriage of mothers of nuptial children ranged from less than one year up to 33 years, and that the average family increased fairly regularly with the duration of marriage. The average issue of married mothers who bore children in 1937 was 2.60 compared with 2.65 in 1936, 2.74 in 1935, 2.83 in 1934 and 2.89 in 1933.

DURATION OF MARRIAGE AND ISSUE OF MOTHERS.—AUSTRALIA, 1937.

Duration of Marriage.	Total Mothers.	Total Issue.	Average Number of Children.	Duration of Marriage.	Total Mothers.	Total Issue.	Average Number of Children.
Years.				Years.			
0-1 ..	20,034	20,270	1.01	17-18 ..	1,252	8,193	6.54
1-2 ..	15,498	18,977	1.22	18-19 ..	861	5,943	6.90
2-3 ..	12,644	21,106	1.67	19-20 ..	659	4,830	7.33
3-4 ..	9,942	19,986	2.01	20-21 ..	449	3,426	7.63
4-5 ..	8,364	19,566	2.34	21-22 ..	382	3,069	8.03
5-6 ..	6,482	17,058	2.63	22-23 ..	344	2,932	8.52
6-7 ..	5,400	15,939	2.95	23-24 ..	229	2,001	8.74
7-8 ..	5,215	16,764	3.21	24-25 ..	165	1,501	9.10
8-9 ..	4,519	15,749	3.49	25-26 ..	108	1,031	9.55
9-10 ..	4,074	15,469	3.80	26-27 ..	63	635	10.08
10-11 ..	3,584	14,471	4.04	27-28 ..	36	436	12.11
11-12 ..	2,866	12,574	4.39	28-29 ..	12	139	11.58
12-13 ..	2,488	11,652	4.68	29-30 ..	11	137	12.45
13-14 ..	2,132	10,752	5.04	30-31 ..	2	23	11.50
14-15 ..	1,855	10,123	5.46	33-34 ..	1	9	9.00
15-16 ..	1,601	9,226	5.76				
16-17 ..	1,513	9,232	6.10				
				Total ..	112,785	293,219	2.60

(iii) *Ages of Mothers and Issue.* The following table shows the average number of children borne by mothers of different ages. In the younger ages there is, naturally, little difference in the average number of children to each mother, but with the increase

of the age of the mother the number of issue has fallen in comparison with past years. During the period 1911 to 1937 the average issue of mothers of all ages has fallen by 22.15 per cent.—from 3.34 in 1911 to 2.60 in 1937:—

AGES AND ISSUE OF MOTHERS.—AUSTRALIA.

Ages of Mothers.	Average Number of Children.				Ages of Mothers.	Average Number of Children.			
	1911.	1921.	1931.	1937.		1911.	1921.	1931.	1937.
Under 20 years ..	1.18	1.16	1.21	1.19	40-44 years ..	6.97	6.27	6.00	5.86
20-24 years ..	1.77	1.64	1.74	1.64	45 years and over..	8.52	8.04	7.48	7.56
25-29 " ..	2.64	2.44	2.46	2.22					
30-34 " ..	3.82	3.57	3.44	3.03					
35-39 " ..	5.28	4.95	4.71	4.34	All Ages ..	3.34	3.08	2.95	2.60

(iv) *Previous Issue of Mothers, Various Ages.* A classification of mothers of various ages according to previous issue is given in the following table:—

MOTHERS OF VARIOUS AGES ACCORDING TO PREVIOUS ISSUE.—AUSTRALIA, 1937.

Previous Issue.	Mothers' Ages.							Total.
	Under 20 Years.	20-24 Years.	25-29 Years.	30-34 Years.	35-39 Years.	40-44 Years.	45 Years and Over.	
0	4,915	17,287	13,465	5,125	1,579	293	(a) 15	42,679
1	985	8,684	10,139	5,861	2,101	351	(a) 16	28,137
2	65	3,255	5,674	4,355	2,179	537	32	16,097
3	5	1,021	3,107	2,965	1,933	570	41	9,642
4	1	231	1,594	1,971	1,558	532	35	5,922
5	..	45	648	1,327	1,245	513	42	3,820
6	..	9	239	793	964	429	(a) 40	2,474
7	..	2	79	391	683	399	37	1,591
8	..	..	14	191	449	326	32	1,012
9	..	..	6	64	251	252	39	612
10	..	..	..	42	165	151	26	384
11	..	..	..	6	69	106	29	210
12	..	..	..	2	24	59	16	101
13	..	..	..	..	17	25	13	55
14	..	..	..	..	8	15	2	25
15	..	..	..	..	..	8	5	13
16	..	..	..	..	..	5	3	8
17	..	..	..	..	..	1	..	1
18	..	..	..	..	..	1	..	1
19	..	..	..	..	..	..	1	1
Total Mothers	5,971	30,534	34,965	23,093	13,225	4,573	424	112,785

(a) Including one mother with age not stated.

(v) *Previous Issue of Twins, Triplets and Quadruplets.* Figures regarding the previous issue of married mothers of twins show that 381 mothers had no previous issue either living or deceased, 289 had one child previously, while 179 had two previous issue, 149 three, 91 four, 49 five, 33 six, 25 seven, 21 eight, 10 nine, 8 ten, 2 eleven, 1 fourteen, and 1 fifteen previous issue.

Of the 9 cases of triplets registered during 1937, 2 mothers had no previous issue, 1 had one previous issue, 3 two, 2 three, and 1 five previous issue. In the one case of quadruplets in 1937, the previous issue of the mother was recorded as eight.

12. *Interval between Marriage and First Birth.*—(i) *Interval.* The following table shows the interval between marriage and first birth for the years 1911, 1921, 1931 and 1937 respectively. Twins, triplets and quadruplets are included, the eldest only being enumerated :—

INTERVAL BETWEEN MARRIAGE AND FIRST BIRTH.—AUSTRALIA.

Interval.	Number of First Children.				Percentage of Total.			
	1911.	1921.	1931.	1937.	1911.	1921.	1931.	1937.
Under 1 month ..	582	437	395	334	% 1.81	% 1.07	% 1.15	% 0.78
1 month ..	608	538	523	404	1.96	1.31	1.52	0.95
2 months ..	817	735	750	609	2.63	1.79	2.17	1.43
3 " ..	1,125	1,017	1,135	947	3.63	2.48	3.29	2.22
4 " ..	1,299	1,336	1,409	1,380	4.19	3.26	4.09	3.23
5 " ..	1,651	1,781	1,968	2,047	5.33	4.34	5.71	4.80
6 " ..	2,089	2,420	2,517	2,919	6.74	5.90	7.30	6.84
7 " ..	1,602	2,231	2,022	2,305	5.17	5.44	5.86	5.40
8 " ..	1,529	1,950	1,139	1,582	4.93	4.75	3.30	3.71
9 " ..	3,361	4,222	2,272	2,915	10.84	10.29	6.59	6.83
10 " ..	2,623	3,630	1,859	2,427	8.46	8.85	5.39	5.68
11 " ..	1,893	2,645	1,636	1,997	6.11	6.45	4.74	4.68
Total under 1 year	19,159	22,942	17,625	19,866	61.80	55.93	51.11	46.55
1-2 years ..	7,400	11,149	8,888	12,214	23.87	27.18	25.77	28.62
2-3 " ..	2,101	2,923	3,441	4,919	6.78	7.13	9.98	11.52
3-4 " ..	908	1,413	1,823	2,365	2.93	3.45	5.29	5.54
4-5 " ..	471	837	967	1,225	1.52	2.04	2.80	2.87
5-9 " ..	762	1,473	1,424	1,719	2.46	3.59	4.13	4.03
10-14 " ..	159	223	262	315	0.51	0.54	0.76	0.74
15-19 " ..	31	54	50	49	0.10	0.13	0.14	0.11
20 years and over	9	4	6	7	0.03	0.01	0.02	0.02
Total ..	31,000	41,018	34,486	42,679	100.00	100.00	100.00	100.00

The masculinity of first births was 104.56 compared with 104.60 for total births.

(ii) *Ages of Mothers and Interval.* The previous issue of mothers of ex-nuptial children is not recorded, but for the purposes of the following table all ex-nuptial births have been assumed to be first births. The table shows in a condensed form the ages of mothers in cases of ex-nuptial births, of nuptial first births occurring less than nine months after marriage, and of all ex-nuptial and nuptial first births. A comparison of the combined total of the first two columns with the total of nuptial children born nine months or more after marriage shows that for all ages the ratio was approximately 3 to 5. At all ages up to and including 21, however, there was a preponderance of ex-nuptial births and of births following on ante-nuptial conception. It must, of course, be understood that a certain number of premature births is necessarily included among the births which occurred less than nine months after marriage, but information in connexion therewith is not available, and the figures in the table must be accepted with this reservation. The tabulation in single ages of mothers appears in Demography Bulletin No. 55, published by this Bureau.

The last four columns show the percentage of births following ante-nuptial conception on the total nuptial first births and ex-nuptial births. These columns disclose the remarkable fact that the percentage of births due to ante-nuptial conception diminishes rapidly from about 80 per cent. among mothers under 20 years of age to a minimum of about 20 per cent. among mothers 25 to 34 years and then rises perceptibly for mothers of older ages.

AGES OF MOTHERS AND INTERVAL BETWEEN MARRIAGE AND FIRST BIRTH, ETC.—AUSTRALIA.

Age of Mother at Birth of Child.	1937.				Percentage Column III. on Column IV.			
	Ex- nuptial Births.	Nuptial Births less than nine months after Marriage.	Total of two preceding columns.	Nuptial First Births and Ex-nuptial Births.	1911.	1921.	1931.	1937.
	I.	II.	III.	IV.	%	%	%	%
Under 20 years	1,406	3,637	5,043	6,321	83.12	79.23	82.60	79.78
20 to 24 years	1,870	6,297	8,167	19,157	53.91	45.82	48.43	42.63
25 to 29 "	865	1,884	2,749	14,330	32.50	25.60	21.89	19.18
30 to 34 "	496	501	997	5,621	28.06	23.05	22.20	17.74
35 to 39 "	357	171	528	1,936	32.64	29.43	30.86	27.27
40 to 44 "	135	33	168	428	36.56	35.31	38.95	39.25
45 and over ..	34	4	38	49	60.47	54.84	48.89	77.55
Total ..	5,163	12,527	17,690	47,842	48.14	39.74	43.80	36.98

13. Interval between Birth and Registration of Birth.—Detailed information for the years 1911 to 1921 regarding the period which elapsed between birth and registration of birth was contained in Demography Bulletins issued by this Bureau for those years. The average interval for the year 1921 was 14.22 days for all children.

§ 2. Stillbirths.

Reliable statistics of the number of children born dead in Australia are not available as registration of these births is not compulsory in all the Australian States. Based on such information as is available the estimated number of stillbirths in Australia during 1937 was approximately 3,500.

§ 3. Marriages.

1. Marriages, 1937.—The number of marriages registered in Australia during the year ended the 31st December, 1937, was 59,448, giving a rate of 8.70 per 1,000 of the mean population for the year. A summary of the number of marriages in each State and Territory at intervals since 1901 is given in the following table :—

MARRIAGES.—SUMMARY, 1901 to 1937.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	A.C.T.	Aus- tralia.
1901 ..	10,538	8,406	3,341	2,304	1,821	1,338	5	(a)	27,753
1911 ..	15,278	11,088	5,167	4,036	2,421	1,477	10	5	39,482
1921 ..	18,506	13,676	5,963	4,383	2,656	1,668	15	2	46,869
1931 ..	15,377	10,182	5,951	3,069	2,741	1,501	25	36	38,882
1932 ..	17,362	11,744	6,415	3,636	2,904	1,508	22	43	43,634
1933 ..	18,399	12,668	6,471	3,973	3,374	1,629	28	53	46,595
1934 ..	20,210	13,862	7,635	4,310	3,682	1,678	30	58	51,465
1935 ..	22,361	15,409	8,280	4,845	3,940	1,875	42	74	56,826
1936 ..	22,873	15,915	8,306	5,182	4,242	2,073	41	77	58,709
1937 ..	23,188	16,226	8,353	5,340	4,169	2,042	69	61	59,448

(a) Part of New South Wales.

2. **Crude Marriage Rates.**—The crude marriage rates for each State and Territory for a series of years are given hereunder:—

CRUDE MARRIAGE RATES.(a)

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	A.C.T.	Aus- tralia.
1901 ..	7.73	6.99	6.66	6.45	9.68	7.76	1.05	..	7.32
1911 ..	9.19	8.40	8.41	9.80	8.44	7.77	3.02	2.81	8.79
1921 ..	8.78	8.90	7.82	8.82	7.95	7.82	3.83	0.80	8.59
1924 ..	8.05	8.10	7.66	7.82	7.15	7.07	4.57	1.02	7.89
1925 ..	8.07	8.00	7.73	7.88	7.36	6.98	5.22	2.29	7.89
1926 ..	8.19	7.90	7.50	8.13	7.47	6.71	3.55	2.74	7.90
1927 ..	8.34	7.88	7.21	7.96	7.93	6.72	5.84	3.88	7.93
1928 ..	8.16	7.53	7.14	7.26	8.12	6.97	5.16	3.54	7.71
1929 ..	7.80	7.31	6.87	6.50	8.00	7.86	4.48	5.03	7.43
1930 ..	6.86	6.52	6.81	5.78	7.47	6.56	6.23	3.79	6.69
1931 ..	6.02	5.66	6.43	5.33	6.34	6.68	5.04	4.09	5.96
1932 ..	6.73	6.49	6.86	6.29	6.68	6.64	4.47	4.82	6.63
1933 ..	7.07	6.96	6.84	6.84	7.69	7.13	5.76	(b)5.85	7.03
1934 ..	7.70	7.57	7.99	7.39	8.34	7.32	6.08	(b)6.26	7.71
1935 ..	8.45	8.38	8.57	8.28	8.85	8.17	8.23	(b)7.89	8.45
1936 ..	8.57	8.61	8.49	8.82	9.43	8.98	7.80	(b)7.89	8.66
1937 ..	8.61	8.74	8.44	9.06	9.18	8.73	12.75	(b)5.98	8.70

(a) Number of marriages (not persons married) per 1,000 of mean annual population. (b) See footnote (c) to table on p. 317. The following are revised rates:—1933, 5.84; 1934, 6.15; 1935, 7.60; 1936, 7.48; and 1937, 5.60.

As in some international tabulations the marriage rates are calculated per 1,000 of the unmarried population of 15 years and over, the corresponding rates have been worked out for Australia for the last six census periods for which the particulars are available. The figures comprise in each case the census year with the year immediately preceding and the year immediately following, and are as follows:—Years 1880–82, 48.98; years 1890–92, 45.74; years 1900–02, 42.14; years 1910–12, 50.44; years 1920–22, 56.02; and years 1932–34, 42.88. These rates refer, of course, to persons married, and not to marriages as is the case in the preceding table.

3. **Marriage Rates in Various Countries.**—The following table shows the marriage rate for Australia for the year 1936, in comparison with the rates for various other countries:—

CRUDE MARRIAGE RATES. (a)—VARIOUS COUNTRIES.

Country.	1908 to 1913.	1936.	Country.	1908 to 1913.	1936.
Union of South Africa(b)	(c)	11.1	Poland ..	7.0	8.3
Soviet Union ..	8.6	10.6(d)	Czechoslovakia ..	7.7	8.0
United States ..	(c)	10.3(e)	Finland ..	6.1	7.9
Western Australia ..	8.1	9.4	Japan ..	9.3	7.8
Denmark ..	7.3	9.3	Belgium ..	7.9	7.8
New Zealand ..	8.5	9.3	Norway ..	6.2	7.8
Rumania ..	9.5	9.2	Scotland ..	6.7	7.6
Germany ..	7.8	9.1	Italy ..	7.7	7.4
Tasmania ..	7.9	9.0	Netherlands ..	7.5	7.2
South Australia ..	9.1	8.8	Switzerland ..	7.3	7.1
Australia ..	8.4	8.7	Northern Ireland ..	5.2	7.1
Great Britain and North Ireland ..	7.3	8.6	Canada ..	(c)	7.3
New South Wales ..	8.8	8.6	Argentine Republic ..	6.8	7.0
Victoria ..	8.0	8.6	France ..	7.9	6.7
England and Wales ..	7.6	8.6	Portugal ..	6.9	6.4
Queensland..	8.2	8.5	Spain ..	7.0	6.1(e)
Sweden ..	6.0	8.5	Ireland (Eire) ..	5.2	5.0
			Ceylon ..	5.2	4.7

(a) Number of marriages per 1,000 of mean population. (b) European population only.
(c) Not available. (d) For 1929. (e) For 1935.

4. **Ages and Conjugal Condition at Marriage.**—(i) *General.* The ages at marriage of bridegrooms and brides will be found in Australian Demography Bulletin, No. 55, published by this Bureau. A summary in age-groups is given in the table hereunder, which also shows the previous conjugal condition of the contracting parties. There were 2,595 males who were less than twenty-one years of age married during 1937, while the corresponding number of females was 11,968. At the other extreme there were 60 men of sixty-five years and upwards who described themselves as bachelors, and 22 spinsters of corresponding age.

Information regarding the percentage distribution of bridegrooms and brides is shown in the last five lines of the table for the years 1911, 1921, 1931, 1936 and 1937.

AGES AND CONJUGAL CONDITION OF PERSONS MARRIED.—AUSTRALIA, 1937.

Ages at Marriage.	Bridegrooms.				Brides.			
	Bachelors.	Widowers.	Divorced.	Total.	Spinsters.	Widows.	Divorced.	Total.
Under 20..	1,176	..	..	1,176	8,090	3	3	8,096
20-24 years	18,036	21	9	18,066	26,169	54	83	26,306
25-29 "	20,538	133	164	20,835	14,122	170	334	14,626
30-34 "	9,120	282	340	9,742	4,453	221	393	5,007
35-39 "	3,487	357	331	4,175	1,673	289	306	2,268
40-44 "	1,308	374	272	1,954	663	351	230	1,244
45-49 "	646	456	202	1,304	357	334	125	816
50-54 "	333	407	107	847	138	241	53	432
55-59 "	168	308	58	534	69	166	27	262
60-64 "	68	270	27	365	39	136	9	184
65 years and over ..	60	375	15	450	22	121	4	147
Total ..	54,940	2,983	1,525	59,448	55,795	2,086	1,567	59,448
Percentage on Total	%	%	%	%	%	%	%	%
1911 ..	93.70	5.84	0.46	100.00	94.60	4.68	0.72	100.00
1921 ..	92.43	6.37	1.20	100.00	92.85	5.91	1.24	100.00
1931 ..	92.04	6.09	1.87	100.00	93.89	4.02	2.09	100.00
1936 ..	92.84	4.97	2.19	100.00	94.39	3.34	2.27	100.00
1937 ..	92.42	5.02	2.56	100.00	93.85	3.51	2.64	100.00

(ii) *Relative Ages, Bridegrooms and Brides.* The relative ages of bridegrooms and brides are shown for single years in Australian Demography Bulletin, No. 55. A condensation into age-groups of five years is given below :—

RELATIVE AGES OF PERSONS MARRIED.—AUSTRALIA, 1937.

Ages of Bridegrooms.	Total Bridegrooms.	Ages of Brides.							
		Under 15.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 and upwards.
Under 20 years	1,176	3	826	318	27	2	..	..	..
20 to 24 "	18,066	3	4,677	11,175	1,992	182	28	4	5
25 to 29 "	20,835	6	1,963	10,626	6,980	1,055	159	33	13
30 to 34 "	9,742	3	432	3,071	3,759	1,913	426	103	35
35 to 39 "	4,175	1	137	781	1,246	1,069	686	187	68
40 to 44 "	1,954	..	27	205	364	464	419	321	154
45 to 49 "	1,304	1	8	75	158	222	284	261	295
50 to 54 "	847	..	5	26	57	94	145	171	349
55 to 59 "	534	..	2	16	33	41	68	85	289
60 to 64 "	365	..	..	10	7	16	33	54	243
65 years and over	450	..	2	3	3	9	20	25	388
Total Brides	59,448	17	8,079	26,306	14,626	5,067	2,268	1,244	1,841

(iii) *Average Ages, Bridegrooms and Brides.* The age at marriage of brides has declined slightly during recent years to an average of about 25½ years. The figures for the past five years are:—1933, 25.42; 1934, 25.65; 1935, 25.70; 1936, 25.23; and 1937, 25.86. For the five years 1907–11 the average age was 25.70 years compared with 25.92 years for the five years 1912–16, 26.07 years for the five years 1917–21, and 25.76 years for the five years 1925–29. The average age of bridegrooms was in 1933, 29.07; in 1934, 29.24; in 1935, 29.25; in 1936, 28.76; and in 1937, 29.41 years. It follows, therefore, that brides are, generally speaking, three and one-half years younger than bridegrooms.

5. *Previous Conjugal Condition.*—The number of bachelors and spinsters, widowed and divorced persons, who were married during the year 1937, has already been given. The following table shows the conjugal condition of the contracting parties:—

PREVIOUS CONJUGAL CONDITION OF PERSONS MARRIED.—AUSTRALIA, 1937.

Conjugal Condition of Bridegrooms.	Total Bridegrooms.	Brides.		
		Spinsters.	Widows.	Divorced.
Bachelors	54,940	52,767	1,092	1,081
Widowers	2,983	1,859	849	275
Divorced	1,525	1,169	145	211
Total Brides ..	59,448	55,795	2,086	1,567

6. *Birthplaces of Persons Married.*—The following table shows the birthplaces of persons who were married in 1911, 1921 and 1937. In Australian Demography Bulletin, No. 55, the relative birthplaces of bridegrooms and brides married in 1937 will be found tabulated in detail:—

BIRTHPLACES OF PERSONS MARRIED.—AUSTRALIA.

Birthplace.	Bridegrooms.			Brides.		
	1911.	1921.	1937.	1911.	1921.	1937.
AUSTRALASIA—						
Australia	31,298	37,925	51,271	33,922	40,137	54,801
New Zealand	450	405	595	303	280	417
EUROPE—						
England and Wales	3,023	3,590	4,444	1,675	2,488	2,493
Scotland	739	867	1,265	460	656	752
Ireland (Eire)	494	470	412	363	281	188
Other British Possessions	16	30	52	9	14	18
Western Europe	205	175	139	45	45	53
Central Europe	311	149	202	92	61	89
Southern Europe	62	139	538	21	56	299
Eastern Europe	47	83	63	18	21	36
ASIA—						
British Possessions	59	59	95	27	24	44
Foreign Countries	83	57	49	16	12	37
AFRICA—						
British Possessions	42	58	100	20	39	69
Foreign Countries	1	3	11	2	5	7
AMERICA—						
Canada	44	45	69	6	11	40
Other British Possessions	6	8	8	..	5	2
United States of America	58	90	73	16	25	44
Other Foreign Countries	44	11	9	15	10	8
POLYNESIA—						
British	13	9	24	7	11	23
Foreign	25	18	12	7	13	9
At Sea and Indefinite	41	22	17	37	19	19
Total	37,061	44,213	59,448	37,061	44,213	59,448

7. **Occupations and Ages of Bridegrooms.**—On the experience of 1931 the average ages at marriage of bridegrooms in the larger classes of occupations were as follows :—Professional, 30.01 years ; Domestic, 30.47 years ; Commercial, 29.20 years ; Transport, 28.71 years ; Industrial, 28.08 years ; and Primary Producers, 30.15 years

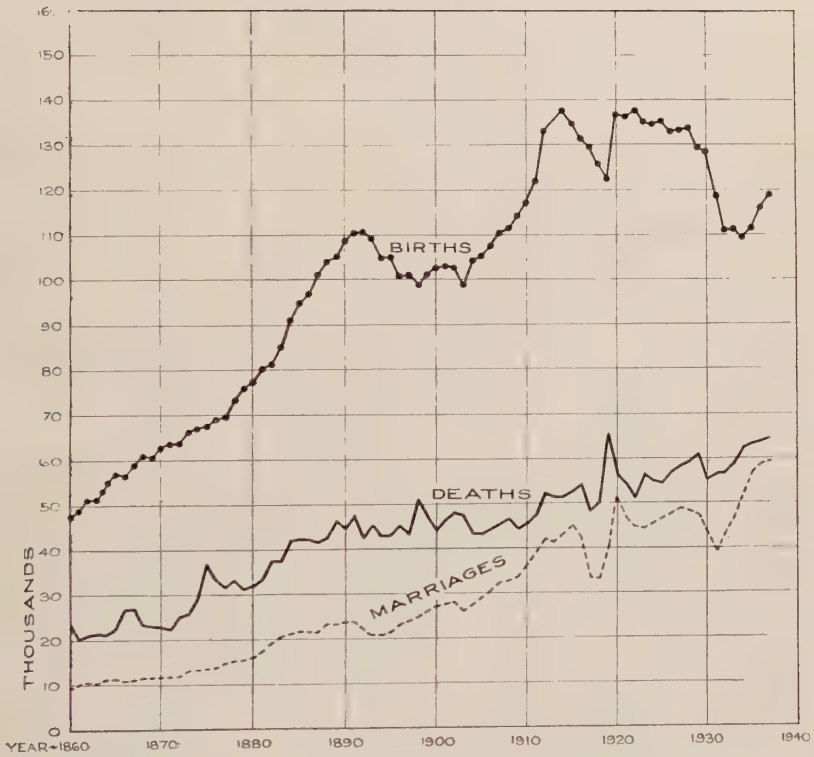
8. **Fertility of Marriages.**—The quotient obtained by division of the nuptial births registered, e.g., during the five years 1933 to 1937, by the number of marriages registered during the five years 1928 to 1932, i.e., the period antecedent by five years to the period of the births, has been called the "fertility of marriages." The quotient for this period is 2.44—in other words, the number of children to be expected from every marriage in Australia is under three. This method, while not absolutely accurate, generally furnishes results which agree fairly well with those found by more elaborate and careful investigation. For the following five-yearly periods the results were :—1928–32, 2.53 ; 1929–33, 2.91 ; 1930–34, 2.58 ; 1931–35, 2.54 ; 1932–36, 2.29 ; and 1933–37, 2.44.

9. **Celebration of Marriages.**—In all the States marriages may be celebrated either by ministers of religion whose names are registered for that purpose with the Registrar-General, or by certain civil officers—in most cases district registrars. Most of the marriages are celebrated by ministers of religion. The registered ministers in 1937 belonged to more than forty different denominations, some of which, however, can hardly be regarded as having any valid existence. A number of these have been omitted from the tabulation and are bracketed under the heading "Other Christian." The figures for 1937 are shown in the following table :—

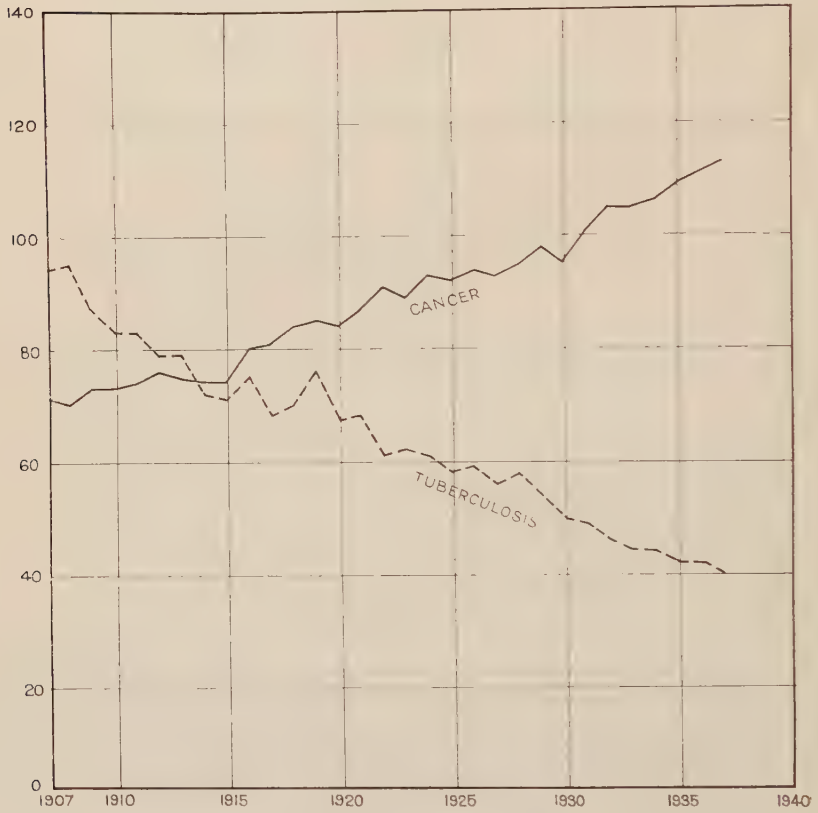
MARRIAGES IN EACH DENOMINATION, 1937.

Denomination.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Nor. Ter.	A.C.T.	Australia.	
									No.	Per Cent.
										%
Church of Eng- land ..	9,278	4,605	2,613	1,307	1,564	749	13	25	20,154	33.90
Roman Catholic ..	4,882	3,002	1,800	655	750	352	12	18	11,471	19.30
Methodist ..	2,638	2,515	1,237	1,051	592	351	22	4	9,010	15.16
Presbyterian ..	2,744	3,173	1,372	231	323	137	..	5	7,985	13.43
Baptist ..	434	789	194	181	70	87	..	2	1,757	2.96
Congregational ..	476	224	122	295	90	74	..	..	1,281	2.15
Church of Christ ..	148	385	69	240	82	30	4	..	958	1.61
Lutheran ..	49	81	175	247	6	..	1	..	559	0.94
Salvation Army ..	95	104	70	42	25	20	..	..	356	0.60
Seventh-Day Adventist ..	50	36	13	6	24	8	..	..	137	0.23
Greek Catholic ..	23	16	21	8	13	..	..	..	81	0.14
Unitarian ..	4	65	..	3	..	..	..	..	72	0.12
Other Christian ..	170	87	236	38	20	20	..	..	571	0.96
Hebrew ..	60	85	5	1	4	..	..	..	155	0.26
Registrar's Office	2,137	1,059	426	435	506	214	17	7	4,901	8.24
Total ..	23,188	16,226	8,353	5,340	4,169	2,042	69	61	59,448	100.00
Marriages cele- brated by Ministers of Religion ..										
per cent.	90.78	93.47	94.90	91.85	85.46	89.52	75.36	88.52	91.76	..
Marriages cele- brated by Civil Officers ..										
per cent.	9.22	6.53	5.10	8.15	14.54	10.48	24.64	11.48	8.24	..

BIRTHS, DEATHS, AND MARRIAGES—AUSTRALIA, 1860 TO 1937.



DEATH RATES—CANCER AND TUBERCULOSIS—AUSTRALIA, 1907 TO 1937.



(See page 424.)

EXPLANATION. The vertical scale represents the number of deaths per 100,000 of the population.

§ 4. Deaths.

1. Deaths, 1937.—The following table shows the number of deaths, male and female, registered in each State during the year :—

DEATHS, 1937.

Sex.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	A.C.T.	Australia.
Male ..	14,347	9,890	5,368	2,823	2,498	1,241	55	24	36,246
Female ..	10,888	8,723	3,638	2,424	1,567	984	8	18	28,250
Total ..	25,235	18,613	9,006	5,247	4,065	2,225	63	42	64,496

A summary of the total number of deaths in each State and Territory at intervals since 1901 is given in the following table :—

DEATHS—SUMMARY 1901-1937.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	A.C.T.	Australia.
1901 ..	16,021	15,904	6,007	3,974	2,519	1,814	91	(a)	46,330
1911 ..	17,146	15,216	6,544	4,038	2,923	1,927	65	10	47,869
1921 ..	20,026	16,165	7,142	4,982	3,480	2,197	80	4	54,076
1931 ..	21,270	17,033	7,525	4,888	3,681	2,057	70	36	56,560
1932 ..	21,343	16,805	7,813	4,957	3,715	2,022	73	29	56,757
1933 ..	22,322	17,456	8,354	4,904	3,790	2,192	61	38	59,117
1934 ..	23,474	18,648	8,192	5,403	4,076	2,345	60	31	62,229
1935 ..	24,547	18,456	8,851	5,163	4,118	2,353	70	41	63,599
1936 ..	24,376	18,778	8,593	5,404	4,230	2,387	60	44	63,932
1937 ..	25,235	18,613	9,006	5,247	4,065	2,225	63	42	64,496

(a) Part of New South Wales prior to 1911.

2. Crude Death Rates.—The crude death rates at intervals from 1901 to 1937 are shown in the following table :—

CRUDE DEATH RATES.(a)

Year and Sex.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	A.C.T.	Australia.
1901 ..	11.75	13.22	11.98	11.12	13.39	10.51	19.10	(b)	12.22
1911 ..	10.31	11.52	10.65	9.81	10.19	10.14	19.63	5.61	10.66
1921 ..	9.50	10.52	9.37	10.02	10.42	10.30	20.44	1.61	9.91
1925 ..	9.07	9.47	9.02	9.22	8.89	9.26	16.19	2.50	9.19
1926 ..	9.44	9.63	9.58	8.81	8.79	8.94	16.22	6.60	9.40
1927 ..	9.46	9.71	9.28	9.07	8.65	9.54	17.07	6.96	9.42
1928 ..	9.21	10.11	9.01	9.02	8.93	9.89	15.92	5.73	9.42
1929 ..	9.82	9.44	9.26	8.80	9.34	9.99	14.55	4.57	9.52
1930 ..	8.39	8.93	8.19	8.46	8.80	8.82	15.46	3.57	8.56
1931 ..	8.32	9.47	8.14	8.49	8.51	9.15	14.12	4.09	8.67
1932 ..	8.27	9.29	8.35	8.58	8.54	8.90	14.85	3.25	8.63
1933 ..	8.58	9.59	8.84	8.44	8.64	9.60	12.55	(c)4.20	8.92
1934 ..	8.95	10.19	8.57	9.26	9.23	10.23	12.16	(c)3.35	9.32
1935 ..	9.28	10.03	9.16	8.83	9.25	10.25	13.72	(c)4.37	9.46
1936 ..	9.14	10.16	8.78	9.30	9.40	10.33	11.42	(c)4.51	9.43
1937—									
Male ..	10.54	10.78	10.36	9.58	10.41	10.47	15.02	(c)4.32	10.48
Female ..	8.17	9.29	7.71	8.23	7.31	8.53	4.58	(c)3.88	8.37
Total ..	9.36	10.03	9.10	8.91	8.95	9.51	11.64	(c)4.12	9.44

(a) Number of deaths per 1,000 of annual mean population. (b) Part of New South Wales prior to 1911. (c) See footnote (c) to table on p. 317. The following are revised rates: 1933, 1.19; 1934 3.29; 1935, 4.21; 1936, 4.27; and 1937, male 4.06, female 3.61, total 3.85.

3. *Index of Mortality.*—(i) *General.* The death rates quoted above are crude rates, i.e., they simply show the number of deaths per thousand of mean population without taking the age constitution into consideration. Other conditions being equal, however, the death rate of a country will be low if it contains a large percentage of young people (not infants). In order to obtain a comparison of the mortality of various countries on a uniform basis so far as sex and age constitution are concerned, the standard population compiled by the International Institute of Statistics according to age distribution (eleven age-groups) of the population of nineteen European countries at their censuses nearest to the year 1900 is used in the computation of the "Index of Mortality" as distinguished from the crude death rate. Full details of the "Standard Population" will be found in Year Book No. 22, page 962.

(ii) *Comparison of Rates.* For the year 1937 on the basis of the crude rates there is a range of 1.12 per 1,000 persons between the lowest rate in South Australia (8.91) and the highest rate in Victoria (10.03). On the standardized rates the range was 1.30 per 1,000, i.e., between 8.02 in South Australia and 9.32 in Queensland. In its application to the figures for 1937 the process of adjustment altered mainly the relative positions of the middle States from those determined by the crude rates. Thus Victoria and Queensland which were the highest and fourth highest respectively in the crude rates were interchanged in order while Tasmania, which was second highest, had on the standardized basis the second lowest rate of all the States. The index of mortality for each State for 1921, 1931, 1936 and 1937 is shown in the following table:—

INDEX OF MORTALITY.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	A.C.T.	Aus- tralia.
1921	10.35	10.79	10.24	10.38	11.88	10.83	13.71	1.89	10.58
1931	8.41	8.78	8.36	7.85	8.66	8.58	16.37	5.27	8.49
1936	9.12	9.23	9.02	8.36	9.62	9.60	8.52	6.57	9.12
1937	9.30	9.02	9.32	8.02	9.25	8.77	8.90	7.94	9.09

(a) See letter-press below.

In view of the changing age constitution of the population, comparisons by means of the indexes of mortality published for years other than the Census and immediately adjoining years need to be made with caution. For the purpose of computing the indexes for each State and the Commonwealth, the ages of the people are estimated for each year on the basis of the proportions ascertained at the previous Census, and hence the results obtained represent the position as it would be had the age constitution remained constant since the Census. Actually considerable variations in ages have occurred during recent years which make this assumption misleading, but owing to lack of data it is impracticable to measure the effects in the States individually. For the Commonwealth as a whole, however, the changes in the ages of the population since the Census of 1933 have been measured from year to year from the records of migration and deaths in separate age groups and of births in each successive year, and on re-calculating the indexes of mortality for the Commonwealth for each year since the Census on the basis of the new age composition so ascertained the more reliable results of 8.92 for 1934, 8.83 for 1935, 8.70 for 1936, and 8.58 for 1937 are obtained. These rates are considerably lower than the indexes previously calculated, the difference being due to the ageing of the Australian population. Unfortunately, it is not possible to indicate with accuracy the corresponding variations in the indexes for individual States.

4. **Crude Death Rates of Various Countries.**—The following table gives the crude death rates of various countries for a pre-war period and the latest available year:—

CRUDE DEATH RATES.(a)—VARIOUS COUNTRIES.

Country.	1908-13.	1936.	Country.	1908-13.	1936.
New Zealand ..	9.3	8.7	England and Wales ..	14.1	12.1
Netherlands ..	13.9	8.7	Great Britain and Northern Ireland ..	14.5	12.3
Queensland ..	10.3	8.8	Belgium ..	15.7	12.8
New South Wales ..	10.3	9.1	Finland ..	16.4	13.1
South Australia ..	10.1	9.3	Czechoslovakia ..	21.0	13.3
Western Australia ..	10.3	9.4	Scotland ..	15.5	13.4
Australia ..	10.7	9.4	Italy ..	20.4	13.7
Union of South Africa (Europeans) ..	(b)	9.6	Poland ..	21.0	14.2
Canada ..	(b)	9.7	Northern Ireland ..	16.9	14.2
Victoria ..	11.7	10.2	Ireland (Eire) ..	16.9	14.4
Norway ..	13.6	10.3	Spain ..	22.8	15.3(d)
Tasmania ..	10.7	10.3	France ..	18.6	15.3
Denmark ..	13.2	11.0	Japan ..	20.5	17.5
Switzerland ..	15.2	11.4	Soviet Union ..	28.9	18.8(c)
United States ..	(b)	11.5	Rumania ..	24.7	19.8
Germany ..	16.5	11.8	Ceylon ..	31.4	21.4
Argentine Republic ..	17.5	11.8	Egypt ..	25.8	27.3
Sweden ..	14.0	12.0			

(a) Number of deaths per 1,000 of mean population.
(d) For 1935.

(b) Not available. (c) For 1928.

5. **Infantile Deaths and Death Rates.**—(i) *Australia*, 1901 to 1937. The universal experience that during the first few years of life the higher death rate of male infants tends to counteract the excess of male births is confirmed by the fact that out of 290,199 male infants born from 1933 to 1937, 12,967 (44.68 per 1,000) died during their first year of life, while of 277,074 female infants only 9,943 (35.89 per 1,000) died during the first year. Stillbirths are not included in any of the tables relating to deaths.

INFANTILE DEATHS AND DEATH RATES.—AUSTRALIA.

Year.	Registered deaths under one year.			Rate of Infantile Mortality. (a)		
	Males.	Females.	Total.	Males.	Females.	Total.
1901 ..	5,888	4,778	10,666	112.13	94.73	103.61
1911 ..	4,745	3,624	8,369	75.91	60.72	68.49
1921 ..	5,111	3,841	8,952	72.97	58.06	65.73
1931 ..	2,889	2,105	4,994	47.34	36.62	42.14
1933 ..	2,500	1,897	4,397	43.74	35.06	39.52
1934 ..	2,697	2,075	4,772	48.29	38.69	43.59
1935 ..	2,537	1,892	4,429	44.59	34.76	39.78
1936 ..	2,668	2,110	4,778	44.92	37.23	41.16
1937 ..	2,565	1,969	4,534	42.11	33.82	38.06

(a) Number of deaths under 1 year per 1,000 live births registered.

(ii) *States, 1901 to 1937.* For the States and Territories the rates of infantile mortality during the period 1901–37 were as follows:—

INFANTILE MORTALITY RATES.(a)

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	A.C.T.	Australia.
1901–05..	97.02	95.91	94.35	86.60	124.79	90.00	149.35	(c)	90.91
1906–10..	77.30	79.90	71.27	68.38	89.80	83.18	143.79	(c)	77.61
1911–15..	71.05	72.23	65.68	67.26	72.43	70.91	85.11	32.54	70.32
1916–20..	64.82	67.18	63.04	61.93	61.73	63.84	67.15	40.40	64.67
1921–25..	58.11	61.93	50.99	54.19	59.14	60.44	40.82	60.24	57.88
1926–30..	54.74	52.34	47.41	46.95	49.27	53.37	66.09	71.31	51.99
1931–35..	41.92	42.76	39.46	35.12	40.81	44.47	80.60	34.48 ^b	41.27
1933 ..	39.35	40.43	42.74	32.13	36.83	41.07	94.59	45.80 ^b	39.52
1934 ..	40.30	44.03	40.01	35.58	40.89	42.28	68.18	7.40 ^b	43.50
1935 ..	39.44	41.17	37.26	34.95	40.15	51.84	83.33	47.30 ^b	39.78
1936 ..	43.47	42.31	36.20	31.09	42.22	49.55	26.55	25.32 ^b	41.10
1937 ..	40.68	36.70	35.64	33.06	37.52	41.73	30.30	14.49 ^b	38.06

(a) Number of deaths under 1 year per 1,000 live births registered. (b) Based on deaths of infants born in the Australian Capital Territory. (c) Part of New South Wales prior to 1911.

INFANTILE MORTALITY RATES—UNDER ONE MONTH AND UNDER ONE YEAR.

State.	Under one month.				One month and under one year.			
	1911–15.	1921–25.	1931–35.	1937.	1911–15.	1921–25.	1931–35.	1937.
New South Wales ..	31.75	29.97	27.64	28.30	39.30	28.14	14.28	12.38
Victoria ..	33.07	32.19	27.76	26.17	39.16	29.74	14.98	10.53
Queensland ..	30.73	27.44	28.02	23.59	34.95	23.55	11.47	12.05
South Australia ..	29.07	27.83	23.00	23.71	38.19	26.36	12.13	9.35
Western Australia..	30.87	27.56	25.11	21.84	41.56	31.58	15.68	15.68
Tasmania ..	32.68	31.73	30.07	30.99	38.23	28.71	14.40	10.74
Australia..	31.69	29.91	27.28	26.27	38.63	27.97	13.99	11.79

These tables disclose the striking decrease in infantile mortality, the rate for 1937 being much less than half that of 1901–05. The second table reveals the fact that relatively little improvement has taken place in the first month of life, but that the principal decrease has occurred among the older children and has been due to the decline in preventable diseases.

The deaths of infants under one year of age during 1937 numbered 4,534, the mortality rate being 38.00. Among the States, South Australia had the lowest and Tasmania the highest rate.

(iii) *Districts.* The total numbers of births and of deaths of children under one year of age for 1937 are shown in Australian Demography Bulletin, No. 55, for each of the sixty-four districts for which vital statistics have been tabulated.

(iv) *Various Countries and Cities.* Compared with other countries the States of Australia occupy a very favourable position, being surpassed only by New Zealand, although in 1930, the latest year for which satisfactory figures are available, both New South Wales and Tasmania had slightly less favourable rates than the Netherlands. The Australian cities, Adelaide and Brisbane, are among the cities having the ten lowest rates in the list shown on the next page. The list is headed by Stockholm (28), Oslo (29), and Adelaide (29), the next seven cities being Amsterdam, Wellington, San Francisco, Auckland, Christchurch, Brisbane and Chicago. The highest rate recorded of the cities named in the table was 245 in Bombay, the rate referring to the year 1935, the latest

available for that city. A study of the respective rates shows that a high birth rate is often though not invariably accompanied by a high infantile death rate :—

INFANTILE MORTALITY RATES.(a)—VARIOUS COUNTRIES.

Country.	Infantile Mortality Rate. (a)		Crude Birth Rate. (b) 1935	Country.	Infantile Mortality Rate. (a)		Crude Birth Rate. (b) 1935.
	1900-15.	1930.			1900-15.	1935.	
New Zealand ..	61	31	16.6	Great Britain and Nth. Ireland ..	..	62	15.3
South Australia ..	68	33	15.2	Germany ..	168	66	19.0
Queensland ..	68	36	19.2	Canada ..	(c)	66	20.0
Victoria ..	76	37	15.6	France ..	122	67	15.0
Australia ..	74	38	17.1	Denmark ..	103	67	17.8
Western Australia	81	38	18.8	Ireland (Eire) ..	92	74	19.6
Netherlands ..	115	39	20.1	Northern Ireland	92	77	20.0
New South Wales	74	41	17.3	Belgium ..	139	79	15.2
Tasmania ..	77	42	19.8	Scotland ..	113	82	17.9
Sweden ..	74	43	14.2	Italy ..	144	100	22.4
Norway ..	68	44(f)	14.8	Spain ..	156	110(f)	25.6(f)
Switzerland ..	108	47	15.6	Japan ..	151	117	29.9
United States ..	(c)	57	16.7	Czechoslovakia ..	(c)	124	17.4
England and Wales ..	113	59	14.8	Hungary ..	205	137	20.5
Union of South Africa (Europeans) ..	(c)	59	24.2	Egypt ..	(c)	164	41.8
				Ceylon ..	(c)	165	33.5
				Soviet Union ..	(c)	173(d)	42.7(e)
				Rumania ..	(c)	175	31.5

(a) Number of deaths under 1 year per 1,000 births registered. mean population. (c) Not available. (d) For year 1930.

(b) Number of births per 1,000. (e) For year 1932. (f) For year 1935.

INFANTILE MORTALITY RATES.(a)—VARIOUS CITIES.

City.	Rate of Infantile Mortality.(a)		City.	Rate of Infantile Mortality.(a)	
	1921.	1936.		1921.	1936.
Stockholm ..	61	28	Hamburg ..	95	57
Oslo ..	54	29	Sheffield ..	99	58
Adelaide ..	74	29	Breslau ..	170	58
Amsterdam ..	54	31	Leeds ..	98	59
Wellington ..	61	32	Birmingham ..	82	60
Auckland ..	54	36	Berlin ..	135	63
Christchurch ..	54	37	Munich ..	126	66
Brisbane ..	62	38	Cologne ..	140	67
Chicago ...	84	39	Paris ..	95	68
San Francisco ..	50	41	Manchester ..	94	68
Sydney ..	62	42	Antwerp ..	98	69
Copenhagen ..	67	42	Edinburgh ..	96	69
Perth ..	81	44	Liverpool ..	105	71
Melbourne ..	74	44	Washington ..	83	72
Detroit ..	83	45	Johannesburg ..	101	73
New York City ..	72	45	Aberdeen ..	108	73
Cape Town ..	82	46	Montreal ..	158	87
Philadelphia ..	78	48	Madrid ..	..	98 (b)
Bresden ..	115	48	Belfast ..	115	101
Toronto ..	91	50	Glasgow ..	106	110
Hobart ..	75	50	Dublin ..	123	114
Los Angeles ..	68	56	Cairo ..	..	199
London ..	80	56	Madras ..	281	224 (b)
Leipzig ..	136	56	Bombay ..	402	245 (b)

(a) Number of deaths under 1 year per 1,000 births registered.

(b) For 1935.

CAUSES OF DEATHS OF CHILDREN UNDER ONE YEAR.—AUSTRALIA, 1937.

Age at Death.	Measles.	Whooping Cough.	Diphtheria.	Erysipelas.	Meningococcal Meningitis.	Respiratory Tuberculosis.	Tubercular Meningitis.	Tuberculosis, other forms.	Syphilis.	Meningitis.	Convulsions.	Acute Bronchitis.
Under 1 week ..	..	1	..	..	..	..	..	..	4	1	9	..
1 week and under 2 weeks ..	..	..	1	..	..	..	..	..	..	..	..	..
2 weeks ..	..	1	1	..	..	..	..	..	..	..	..	..
3 ..	..	3	1	1	..	..	..	..	..	..	..	..
1 month ..	..	16	..	3	..	..	..	..	..	..	..	..
2 months ..	..	14	1	2	1	..	..	..	..	..	..	..
3 ..	..	17	1	4	..	..	..	..	..	..	..	..
4 ..	..	10	1	..	2	..	..	..	..	..	..	..
5 ..	..	5	1	..	..	2	1	1	..	..	..	..
6 ..	..	10	..	3	1	1	1	..	..	..	..	..
7 ..	..	6	..	..	..	1	..	..	..	..	..	..
8 ..	..	5	2	..	1	..	..	..	..	..	..	..
9 ..	..	13	1	..	1	1	3	..	..	..	..	..
10 ..	..	6	3	1	1	1	..	..	..	..	..	..
11 ..	..	5	3	..	..	..	..	..	..	..	..	..
Total under 1 year ..	4	112	16	14	7	8	5	7	14	35	21	6
Infantile Mortality (a)—												
1911 ..	0.34	1.57	0.25	0.16	..	0.08	0.31	0.22	0.85	1.83	2.55	2.34
1921 ..	0.15	1.07	0.59	0.24	0.03	0.07	0.18	0.08	0.56	1.10	1.45	1.50
1931 ..	0.10	1.58	0.25	0.11	0.08	0.03	0.22	0.04	0.26	0.32	0.30	0.32
1937 ..	0.03	0.94	0.13	0.12	0.06	0.07	0.04	0.06	0.12	0.29	0.18	0.05
Ex-nuptial deaths under 1 year included in above, 1937												
Infantile Mortality (b)—												
1925 ..	0.16	2.06	0.32	0.16	0.48	..	0.32	..	1.27	0.32	2.38	0.48
1931 ..	0.51	1.71	0.34	..	0.17	..	0.34	..	0.51	0.30	0.81	0.66
1937 ..	..	0.97	0.39	0.39	..	0.30	..	..	0.19	0.30	0.39	0.30
Age at Death.	Broncho-Pneumonia.	Pneumonia.	Other Diseases of the Stomach.	Diarrhoea and Enteritis.	Hernia and Intestinal Obstruction.	Malformation.	Congenital Debility. (c)	Premature Birth.	Injury at Birth.	Icterus, Sclerema and other Diseases of Early Infancy.	Other Causes.	Total.
Under 1 week ..	34	14	..	2	4	246	117	1,200	406	355	61	2,544
1 week and under 2 weeks ..	15	8	1	8	4	50	20	119	41	50	19	345
2 weeks ..	13	4	..	6	2	27	14	35	6	9	15	135
3 ..	9	11	1	5	..	13	6	22	3	9	20	105
1 month ..	31	13	1	10	4	40	10	27	3	13	35	220
2 months ..	33	10	..	21	1	28	6	9	2	9	20	159
3 ..	10	14	1	19	..	16	6	4	..	..	26	130
4 ..	20	10	..	28	6	13	7	1	..	..	14	121
5 ..	11	7	1	21	8	10	5	1	1	..	24	100
6 ..	21	6	..	26	7	11	5	1	..	..	27	132
7 ..	23	13	..	26	6	5	..	..	..	..	25	122
8 ..	24	12	..	25	3	5	3	1	..	..	18	105
9 ..	16	13	..	24	2	5	..	..	..	..	30	114
10 ..	17	10	1	14	3	8	..	..	..	..	30	99
11 ..	13	14	1	21	3	7	2	..	..	..	21	96
Total under 1 year ..	299	159	7	205	53	493	247	1,480	402	435	385	4,534
Infantile Mortality (a)												
1911 ..	2.86	1.90	0.47	16.99	0.72	2.90	..	22.41	4.07	..	5.58	18.40
1921 ..	3.08	2.08	0.71	15.01	0.57	3.74	7.64	15.29	5.53	..	4.10	65.73
1931 ..	2.82	1.62	0.13	3.26	0.41	4.23	2.60	14.04	2.81	3.29	3.29	42.14
1937 ..	2.51	1.33	0.00	2.23	0.44	4.14	2.07	12.43	3.88	3.65	3.23	38.06
Ex-nuptial deaths under 1 year included in above, 1937												
Infantile Mortality (b)—												
1925 ..	8.09	2.38	1.11	19.18	0.47	3.64	9.51	20.93	1.00	2.69	6.98	84.83
1931 ..	5.31	3.43	0.34	8.39	0.17	4.28	7.19	21.92	3.08	3.77	5.82	68.65
1937 ..	6.58	3.48	0.39	6.20	0.39	4.26	5.61	23.82	6.20	4.07	8.13	72.63

(a) Rate per 1,000 total births.

(b) Rate per 1,000 ex-nuptial births.

(c) Including Icterus and Sclerema prior to 1931.

(v) *Causes of Deaths of Children under one Year.* The preceding table gives for twenty-three causes the ages of all children who died under one year of age during 1937. The infantile mortality rates for 1911, 1921, 1931 and 1937 have been added for all births, and for 1925, 1931 and 1937 for ex-nuptial births. Particulars for males and females during 1937 may be found in Australian Demography Bulletin, No. 55.

Pre-natal influences, such as malformation, congenital debility and premature birth, together with injuries at birth, accounted for 2,682 or 59 per cent. of all deaths under one year; and of these 2,682 deaths, 2,059 or 77 per cent., occurred less than a week after birth. Among the survivors of the first week, broncho-pneumonia caused the greatest number of deaths. This disease was responsible for 299 deaths, representing 7 per cent. of all deaths under one year, or 2.51 per 1,000 births, while a further 159 deaths were due to pneumonia of unspecified nature. Diarrhoea and enteritis caused 265 deaths and whooping cough 112 deaths.

(vi) *Deaths of Ex-nuptial Children under one Year.* The deaths of ex-nuptial children were tabulated by this Bureau for the first time in 1925. The causes of death of these children in 1937 and the rates in respect of 1925, 1931 and 1937 are shown as an addendum to the preceding table.

Pre-natal influences such as malformation, congenital debility, premature birth and injuries at birth accounted for 206, or 55 per cent., and broncho-pneumonia for 34, or 9 per cent., of the total deaths of ex-nuptial children under 1 year.

6. *Deaths in Age-Groups.*—A distribution into age-groups has been made of the 313,373 deaths which occurred in Australia during the past five years, and the results are shown in the following table.

A table giving the corresponding percentages for earlier periods from the year 1901 has been added to show the movement over a longer term. The most striking change is the substantial decrease in the group "under 1 year". At the other end of the table, the group "65 years and over" has increased by a similar amount. The percentages in all age-groups under 40 have fallen and those in all age-groups from 40 onwards have risen. These changes are due partly to improvement in the efficiency of medical science and partly to changes in the age distribution of the population. The latter changes are themselves in part due to increased length of life made possible by medical science and in part to changes in the volume of migration and the falling birth-rate:—

DEATHS IN AGE-GROUPS.—AUSTRALIA, 1933 TO 1937.

Age-Group.	Males.	Females.	Total.	Percentage of Total Males.	Percentage of Total Females.	Percentage of Total.
Under 1 year ..	12,967	9,943	22,910	7.39	7.21	7.31
1 year and under 5 ..	4,355	3,768	8,123	2.48	2.73	2.59
5 years and under 20 ..	7,241	5,147	12,388	4.13	3.73	3.95
20 years and under 40 ..	15,677	14,448	30,125	8.94	10.47	9.61
40 years and under 60 ..	38,382	26,610	64,992	21.88	19.29	20.74
60 years and under 65 ..	15,706	10,393	26,099	8.96	7.53	8.33
65 years and over ..	80,988	67,640	148,628	46.17	49.03	47.43
Age unspecified ..	93	15	108	0.05	0.01	0.04
Total ..	175,409	137,964	313,373	100.00	100.00	100.00

DEATHS IN AGE-GROUPS—PERCENTAGES.—AUSTRALIA.

Age-Group. (Years.)	Males.			Females.			Persons.		
	1901-10.	1916-20.	1921-30.	1901-10.	1916-20.	1921-30.	1901-10.	1916-20.	1921-30.
	%	%	%	%	%	%	%	%	%
Under 1 ..	19.80	15.16	13.18	21.47	15.27	12.98	20.51	15.20	13.10
1-4 ..	5.84	5.61	4.35	7.28	6.58	4.72	6.45	6.03	4.51
5-19 ..	5.84	5.18	4.86	7.08	5.73	4.85	6.37	5.42	4.85
20-39 ..	13.85	13.57	11.00	16.54	16.34	13.59	14.99	14.76	12.12
40-59 ..	19.70	22.55	21.76	15.67	18.41	18.96	17.99	20.77	20.55
60-64 ..	5.71	7.58	9.01	4.77	5.86	7.27	5.31	6.84	8.26
65 and over ..	29.08	30.18	35.71	27.15	31.77	37.61	28.26	30.86	36.53
Age Unspecified	0.18	0.17	0.13	0.04	0.04	0.02	0.12	0.12	0.08
Total ..	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

7. Deaths at Single Ages and in Age-Groups.—(i) *General.* The 64,496 deaths registered in Australia in the year 1937 will be found tabulated in groups of five years for each State and Territory and in single ages for the Commonwealth in the latest Australian Demography Bulletin. The deaths during the first fifteen years of life have been tabulated in single ages and for the first year of life in shorter periods. A summary for Australia is given in the following table:—

DEATHS AT SINGLE AGES AND IN AGE-GROUPS.—AUSTRALIA, 1937.

Ages.	Males.	Females.	Total.	Ages.	Males.	Females.	Total.
Under 1 week ..	1,448	1,096	2,544	Total 5-9 years ..	466	325	791
1 week and under 2 ..	200	145	345	10-14 ..	371	264	635
2 weeks and under 3 ..	73	62	135	15-19 ..	557	387	944
3 weeks and under 1 month ..	64	41	105				
Total under 1 month	1,785	1,344	3,129	20-24 ..	770	569	1,339
				25-29 ..	737	676	1,413
				30-34 ..	768	680	1,448
				35-39 ..	973	780	1,753
				40-44 ..	1,187	1,016	2,203
				45-49 ..	1,760	1,216	2,976
1 month and under 3 ..	224	164	388				
3 months and under 6 ..	185	166	351	50-54 ..	2,225	1,452	3,677
6 months and under 12	371	295	666	55-59 ..	2,757	1,724	4,481
Total under 1 year ..	2,565	1,969	4,534	60-64 ..	3,215	2,147	5,362
				65-69 ..	3,886	2,768	6,654
				70-74 ..	4,391	3,372	7,763
				75-79 ..	4,305	3,622	7,927
				80-84 ..	2,775	2,549	5,324
1 year and under 2 ..	345	307	652	85-89 ..	1,298	1,406	2,704
2 years ..	179	164	343	90-94 ..	304	534	838
3 ..	133	92	225	95-99 ..	90	125	215
4 ..	104	89	193	100 and over ..	9	15	24
				Age Unspecified ..	16	2	18
Total under 5 years ..	3,326	2,621	5,947	Total All Ages ..	36,246	28,250	64,496

(ii) *Rates.* The following table gives the average annual death rates per 1,000 living in age-groups for the period 1932 to 1934, i.e., the Census year 1933 and the years immediately preceding and following. Deaths in the Northern Territory and the Australian Capital Territory are included in the total for Australia but not in any of the States. Similar details for the years 1920 to 1922 may be found in Official Year-Book, No. 22, p. 975.

AVERAGE ANNUAL DEATH RATES.—AGE GROUPS, 1932 TO 1934.

Age Group.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
MALES.							
Years.							
0-4 ..	12.51	12.65	12.21	9.91	12.81	12.77	12.33
5-9 ..	1.41	1.72	1.56	1.21	1.56	2.08	1.53
10-14 ..	1.23	1.38	1.08	1.04	1.40	1.27	1.24
15-19 ..	1.69	1.76	1.93	1.71	1.76	2.05	1.76
20-24 ..	2.28	2.31	2.81	2.31	2.52	2.73	2.41
25-29 ..	2.21	2.58	2.93	2.50	2.85	2.98	2.52
30-34 ..	2.81	2.82	3.50	2.53	3.10	3.78	2.96
35-39 ..	3.76	3.85	4.61	3.26	4.01	4.71	3.92
40-44 ..	5.34	4.93	6.04	4.71	5.69	4.85	5.28
45-49 ..	7.91	7.61	7.98	6.80	8.81	6.90	7.76
50-54 ..	11.62	11.25	11.82	9.81	13.48	9.96	11.45
55-59 ..	17.70	18.68	17.58	15.15	21.43	14.47	17.89
60-64 ..	25.74	26.66	26.92	25.08	28.26	23.92	26.27
65-69 ..	39.99	41.17	39.94	36.14	42.40	35.11	40.03
70-74 ..	62.28	63.96	58.90	57.29	63.40	59.22	61.85
75-79 ..	95.52	98.12	94.59	92.66	105.14	94.23	96.26
80-84 ..	156.44	157.81	168.61	146.83	176.82	160.80	158.70
85-89 ..	231.04	233.33	218.42	239.45	264.96	204.45	230.75
90 and over	313.38	348.76	314.86	303.07	380.77	401.97	327.55

FEMALES.

Years.							
0-4 ..	10.05	7.04	10.72	8.30	8.64	10.42	10.00
5-9 ..	1.17	1.30	1.03	1.03	1.27	1.54	1.19
10-14 ..	0.83	0.97	0.93	0.90	0.99	0.91	0.90
15-19 ..	1.36	1.39	1.50	1.23	1.26	2.22	1.39
20-24 ..	2.03	2.00	2.77	2.35	1.94	2.58	2.11
25-29 ..	2.44	2.50	2.81	2.74	2.75	3.74	2.60
30-34 ..	2.88	2.87	3.44	2.64	3.13	3.03	2.97
35-39 ..	3.75	3.37	4.05	3.88	4.24	4.43	3.74
40-44 ..	4.24	4.32	4.89	4.10	5.79	4.88	4.37
45-49 ..	6.02	6.11	6.14	5.78	6.35	5.44	6.03
50-54 ..	8.27	8.81	8.61	8.07	9.08	10.08	8.56
55-59 ..	11.62	12.49	12.02	11.26	10.69	11.62	15.54
60-64 ..	17.27	18.73	17.19	17.78	17.32	16.87	17.77
65-69 ..	29.55	29.91	27.01	27.13	29.81	30.46	29.21
70-74 ..	45.95	48.18	49.03	42.31	44.10	48.31	46.70
75-79 ..	74.78	81.13	76.29	75.65	74.42	83.58	77.47
80-84 ..	125.55	127.91	126.63	120.74	120.99	125.15	125.68
85-89 ..	119.40	204.57	208.19	207.40	192.39	195.28	199.94
90 and over	292.10	327.10	370.23	233.58	397.20	363.63	306.24

PERSONS.

Years.							
0-4 ..	11.31	11.37	11.48	9.12	11.35	11.62	11.19
5-9 ..	1.29	1.51	1.30	1.12	1.41	1.81	1.36
10-14 ..	1.03	1.18	1.01	0.97	1.20	1.09	1.07
15-19 ..	1.52	1.57	1.72	1.47	1.51	2.14	1.58
20-24 ..	2.16	2.16	2.60	2.35	2.24	2.66	2.26
25-29 ..	2.32	2.54	2.87	2.61	2.80	3.35	2.50
30-34 ..	2.85	2.85	3.47	2.59	3.12	3.71	2.96
35-39 ..	3.76	3.61	4.34	3.57	4.12	4.56	3.83
40-44 ..	4.79	4.62	5.50	4.40	5.15	4.86	4.83
45-49 ..	6.99	6.84	7.14	6.29	7.67	6.19	6.02
50-54 ..	10.00	10.00	10.37	8.93	11.47	10.02	10.04
55-59 ..	14.70	15.46	14.86	13.19	16.63	13.09	14.88
60-64 ..	21.56	22.46	22.41	21.35	23.44	20.52	22.04
65-69 ..	34.90	35.29	34.06	31.39	37.01	32.87	34.60
70-74 ..	54.31	55.68	54.55	49.43	55.28	53.80	54.38
75-79 ..	85.18	89.06	86.33	83.92	91.08	88.97	86.82
80-84 ..	140.43	140.48	148.56	132.56	149.72	142.64	141.13
85-89 ..	209.89	215.56	213.10	220.66	222.90	199.07	214.17
90 and over	301.13	334.60	341.25	253.61	389.21	376.36	314.41

8. Deaths of Centenarians.—Particulars concerning the twenty-four persons—nine males and fifteen females—who died in 1937 aged 100 years and upwards, are given in the following table. While the Registrars-General of the various States verify the figures as far as possible, absolute reliance cannot be placed on their accuracy, owing to the well-known tendency of very old people to overstate their ages. In connexion with this question it may be noted that while parish registers in the United Kingdom often date very far back, compulsory registration of births dates practically from 1874 only, the Act of 1836 having left many loopholes for those unwilling to register the births of their children.

DEATHS OF CENTENARIANS.—AUSTRALIA, 1937.

Age.	Locality where Death occurred.	State.	Cause of Death.	Occupation.	Birthplace.	Length of Residence in Australia.	Conjugal Condition.
MALES.							
100	Narrabri ..	N.S.W. ..	Cardiac failure, Broncho Pneumonia	Labourer..	India ..	50 years ..	Married
100	Ashfield ..	" ..	Senility ..	Retired farmer	England ..	78 years ..	"
100	West Maitland ..	" ..	Senile decay accentuated by malnutrition	Market gardener	China ..	60 years ..	Unknown
100	Northcote	Victoria ..	Senility ..	Unknown	N.S.W. ..	Native ..	"
101	Shepparton	" ..	Senility ..	Farmer ..	Germany..	83 years ..	Married
101	Cairns ..	Queensland	Cerebral Oedema, Chronic Nephritis, Arterio Sclerosis	Labourer..	England ..	80 years ..	Single
103	Wallsend ..	N.S.W. ..	Acute Bronchitis, Senility	" ..	Ireland ..	60 years ..	"
103	Perth ..	West. Aust.	Senility, Inanition	Not stated	Afghanistan	56 years ..	Not stated
104	Northern Division	Sth. Aust.	Senile decay, Malnutrition	Old-age Pensioner	India ..	50 years ..	Single
FEMALES.							
100	Burwood ..	N.S.W. ..	Senility ..	" ..	England ..	50 years ..	Married
100	Ballarat ..	Victoria ..	" ..	" ..	Tasmania	Native ..	"
100	Camberwell	" ..	Broncho Pneumonia	" ..	Ireland ..	85 years ..	"
100	Launceston	Tasmania	Fractured Femur (fall), Heart failure	" ..	" ..	92 years ..	"
101	Hawthorn	Victoria ..	Senility ..	" ..	" ..	74 years ..	"
101	Inglewood ..	" ..	" ..	" ..	England ..	74 years ..	"
101	Bendigo ..	" ..	Senility, Bronchitis	" ..	" ..	78 years ..	"
101	Burnside ..	Sth. Aust.	Chronic Bronchitis	" ..	" ..	49 years ..	"
102	Sydney ..	N.S.W. ..	Senility ..	" ..	Ireland ..	Unknown	"
102	Melbourne	Victoria ..	Diarrhoea ..	" ..	England ..	70 years ..	Unknown
102	Glamorgan	Tasmania	Senility ..	" ..	Germany..	83 years ..	Married
102	Bothwell ..	" ..	Senility, Syncope, Angina Pectoris	" ..	England ..	70 years ..	"
103	Aburn ..	N.S.W. ..	Senility ..	" ..	N.S.W. ..	Native ..	"
104	Geelong West	Victoria ..	Senility ..	" ..	England ..	83 years ..	"
105	Marion ..	Sth. Aust.	Senile decay	" ..	" ..	82 years ..	"

NOTE.—The particulars shown in this table are those given in the death registers, and no attempt has been made by the Commonwealth Bureau of Census and Statistics to verify them.

9. Length of Residence in Australia of Persons who Died.—The length of residence in Australia of all persons whose deaths were registered in the year 1937 is shown in the following table :—

LENGTH OF RESIDENCE IN AUSTRALIA OF PERSONS WHO DIED IN 1937.

Length of Residence.	Male Deaths.	Female Deaths.	Total Deaths.	Length of Residence.	Male Deaths.	Female Deaths.	Total Deaths.
Born in Australia ..	25,711	21,654	47,365	Resident 25 to 29 years	1,064	529	1,593
Resident under 1 year	48	11	59	" 30 to 34 " ..	400	163	563
" 1 year ..	14	4	18	" 35 to 39 " ..	313	155	468
" 2 years ..	17	15	32	" 40 to 44 " ..	560	250	810
" 3 " ..	14	10	24	" 45 to 49 " ..	602	415	1,017
" 4 " ..	13	11	24	" 50 to 54 " ..	1,703	1,063	2,766
" 5 " ..	15	14	29	" 55 to 59 " ..	864	545	1,409
" 6 " ..	14	12	26	" 60 to 64 " ..	743	503	1,251
" 7 " ..	33	23	56	" 65 yrs. and over	1,145	1,384	2,529
" 8 " ..	42	30	72	Length of residence not stated ..	1,479	453	1,932
" 9 " ..	58	50	108				
" 10 to 14 years	510	296	806				
" 15 to 19 " ..	311	281	592				
" 20 to 24 " ..	568	379	947	Total ..	36,246	28,250	64,496

10. Birthplaces of Persons who Died.—The following table provides a summary of birthplaces of persons whose deaths were registered in 1911 and 1937. More detailed information in respect of 1937 will be found in Australian Demography Bulletin, No. 55 :—

BIRTHPLACES OF PERSONS WHO DIED.—AUSTRALIA.

Birthplace.	1911.			1937.		
	Males.	Females.	Total.	Males.	Females.	Total.
AUSTRALASIA—						
Australia	14,476	12,279	26,755	25,711	21,654	47,365
New Zealand	126	79	205	354	227	581
EUROPE—						
England and Wales	5,639	3,541	9,180	5,126	3,496	8,622
Scotland	1,666	1,112	2,778	1,338	881	2,219
Ireland (Eire)	2,837	2,528	5,365	1,422	1,201	2,623
Other British Possessions	40	26	66	50	32	82
Western Europe	365	62	427	336	61	397
Central Europe	678	292	970	492	245	737
Southern Europe	122	15	137	237	70	307
Eastern Europe	71	6	77	71	28	99
ASIA—						
British Possessions	102	28	130	117	53	170
Foreign Countries	470	8	478	255	27	282
AFRICA—						
British Possessions	29	18	47	54	27	81
Foreign Countries	2	1	3	8	1	9
AMERICA—						
Canada	73	15	88	40	19	59
Other British Possessions	5	6	11	10	5	15
United States of America	72	18	90	65	29	94
Other Foreign Countries	35	12	47	8	3	11
POLYNESIA—						
British	47	4	51	12	12	24
Foreign	44	10	54	31	5	36
At Sea and Indefinite	692	218	910	509	174	683
Total	27,591	20,278	47,869	36,246	28,250	64,496

11. **Occupations of Males who Died.**—Information as to the main groups of the occupations of the 36,246 males who died in Australia in 1937 is contained in the following table. Corresponding data for 1921 and 1931 have been added for purposes of comparison.

OCCUPATIONS OF MALES WHO DIED.—AUSTRALIA.

Occupation Group.	Number of Male Deaths.			Percentage of Total.		
	1921.	1931.	1937.	1921.	1931.	1937.
				%	%	%
Professional	1,307	1,534	2,064	4.26	4.82	5.60
Domestic	830	846	913	2.71	2.66	2.52
Commercial	2,739	3,727	3,144	8.94	11.72	8.67
Transport and Communication	1,841	2,189	2,728	6.01	6.89	7.53
Industrial	8,613	10,330	6,042	28.10	32.49	16.67
Agricultural, Pastoral and Mining, &c.	5,711	6,157	7,156	18.63	19.36	19.75
Indefinite	1,436	1,802	(a)9,884	4.68	5.67	(a)27.27
Dependent	8,175	5,211	4,315	26.67	16.39	11.90
Total Male Deaths ..	30,652	31,796	36,246	100.00	100.00	100.00

(a) Includes 7,207 (19.88 per cent.) clerks, labourers, etc., not specified as belonging to any industry, who were formerly included under "Commercial" or "Industrial."

12. **Causes of Death.**—(i) *General.* The classification adopted by the Commonwealth Bureau of Census and Statistics is that of the International Institute of Statistics, as amended by the Committees of Revision which met in Paris in 1909, 1920 and 1929. The next decennial meeting has been put forward a year and is due to be held in 1938.

(ii) *Mortality Statistics for 1907 and Subsequent Years.* The statistics relating to causes of death in Australia from the year 1907 onward have been tabulated in the Commonwealth Bureau of Census and Statistics in accordance with the above-mentioned classification, and the system is being employed also in the various State statistical offices.

(iii) *Classification of Causes of Death, according to the Intermediate and the Abridged International Classifications.* An abridged classification, which enumerates forty-three diseases and groups of diseases according to the revised classification, has been in use in many European countries and American States until recently, and a table has been prepared in past issues of the Year Book showing the causes of death according to the abridged classification, so that the results may be compared with those of other countries which used the abridged index.

As the result of an international treaty signed in London in 1934, the intermediate classification of causes of death, or the "minimum nomenclature," covering 85 main causes or groups of causes, has now been adopted in most countries for the purpose of making international comparisons. This classification appears in the pages following and shows the number of deaths during 1937 in Australia for each cause enumerated. To preserve continuity with former statistics, particulars for 1937 have been compiled in the abridged form also and are shown on p. 417 in conjunction with those for the previous four years, while averages over quinquennial periods to 1931-35 are shown in the same form on p. 418.

The compilations for the years 1933 to 1937 will be found in full detail in the Bulletins of Australian Demography, Nos. 51 to 55. In the following tables in which the intermediate classification has been employed, tables A, B and C show deaths of males, females and persons for the year 1937. Table D shows in the abridged form the number of persons who died in each of the years 1933 to 1937 and gives the rate per million of population for the last-named year.

Since death rates are subject to continual fluctuation, it is unsafe to base deductions on the figures relating to a single year. In order, therefore, to furnish a valid basis for comparison, Table E giving the number of deaths and the rates per 1,000,000 persons for three quinquennial periods has been prepared. While the absolute number of deaths has increased, the death rate has shown a very satisfactory decrease, which is reflected in the great majority of the causes specified in the table.

A.—CAUSES OF DEATH.—MALES, 1937.

INTERMEDIATE CLASSIFICATION.

Intermediate Classification.	General Classification Numbers.	N.S.W.	Vic.	Q'land.	S. Aus.	W. Aus.	Tas.	Nor. Ter.	A. C. T.	Aus-tralia.
1. Typhoid and Paratyphoid Fever (1)	1, 2	12	5	9	4	4	1	..	..	35
2. Typhus Fever (2)	3	..	..	2	..	..	..	I	..	3
3. Small-pox (3)	6	..	..	..	..	..	..	..	..	..
4. Measles (4)	7	4	I	..	..	..	..	..	..	8
5. Scarlet Fever (5)	8	10	I	3	I	I	I	..	..	17
6. Whooping Cough (6)	9	30	18	9	2	2	I	..	..	62
7. Diphtheria (7)	10	76	32	19	13	22	9	..	..	171
8a. Influenza—Pneumonic (8a)	11 (a)	67	22	41	5	8	2	..	I	146
8b. Influenza—Other (8b)	11 (b)	34	16	18	2	4	..	..	..	74
9. Dysentery (14)	13	9	2	3	2	2	3	..	..	21
10. Plague (9)	14	..	..	..	..	..	..	..	..	..
11. Tuberculosis of the Respiratory System (10)	23	647	409	183	121	130	47	I	..	1,538
12a. Tubercular Meningitis (11a)	24	18	17	2	6	5	10	..	..	58
12b. Other forms of Tuberculosis (11b)	25-32	35	25	12	8	9	9	..	..	98
13. Syphilis (12)	34	34	31	15	13	12	7	I	..	113
14. Purulent Infection, Septicæmia (non-puerperal) (14)	36	17	17	13	2	5	2	..	..	56
15. Malaria (13)	38	3	..	..	..	I	..	I	..	5
16. Diseases due to other Protozoal Parasites or Helminths (14)	39-42	12	12	2	4	2	3	..	..	35
17. Other Infectious and Parasitic Diseases (14)	*	63	74	36	13	9	19	..	..	214
18. Cancer and other Malignant Tumors (15)	45-53	1,497	1,147	594	369	244	145	5	3	4,004
19. Tumors, Non-malignant or of which the nature is not specified (16)	54, 55	64	42	30	22	10	4	..	..	172
20. Acute Rheumatic Fever (20)	56	38	38	21	7	9	5	..	..	118
21. Chronic Rheumatism and Gout (17)	57, 58	14	16	7	7	2	2	..	..	48
22. Diabetes Mellitus (18)	59	191	109	53	47	17	12	..	I	430
23. Nutritional Diseases (20)	60-64	..	..	I	..	..	..	..	..	I
24. Diseases of the Thyroid and Parathyroid Glands (20)	66	12	9	I	2	..	I	..	..	25
25. Other General Diseases (20)	65, 67-69	10	13	8	2	4	..	..	..	38
26. Anaemias (20)	71	35	24	10	8	5	3	I	..	86
27. Leucæmias, Pseudoleucæmias, and other Diseases of the Blood and Blood-making Organs (20)	70, 72-74	88	56	29	19	15	7	I	I	216
28. Alcoholism (acute or chronic) (19)	75	19	7	18	5	I	I	..	..	51
29. Other Chronic Poisonings (20)	76, 77	5	I	6	..	I	..	..	..	13
30. Meningitis (23)	79	35	15	19	9	10	2	..	..	90
31. Progressive Locomotor Ataxia (21) (tabes dorsalis)	80	31	8	7	2	5	I	..	..	54
32. Cerebral Hæmorrhage, Cerebral Embolism and Thrombosis (22)	82	426	409	181	121	101	50	I	..	1,289
33. General Paralysis of the Insane (21)	83	32	16	15	5	..	2	..	I	71
34. Dementia Præcox and other Psychoses (23)	84	12	4	14	5	..	I	..	..	36
35. Epilepsy (23)	85	48	16	15	7	4	4	..	..	94
36. Other Diseases of the Nervous System (23)	*	123	86	70	22	17	8	..	..	326
37. Diseases of the Eye, Ear and their Annexa (23)	88, 89	25	14	9	4	8	3	..	..	63
38. Pericarditis (24)	90	9	6	4	..	3	I	..	..	23
39. Acute Endocarditis (24)	91	36	16	13	3	..	4	..	..	72
40. Chronic Endocarditis, Valvular Diseases (24)	92	397	258	170	74	56	58	3	I	1,017
41. Diseases of the Myocardium (24)	93	2,316	1,117	640	311	271	142	4	..	4,801
42. Diseases of the Coronary Arteries and Angina Pectoris (24)	94	880	590	250	156	110	53	..	2	2,059
43. Other Diseases of the Heart (24)	95	216	201	127	29	44	27	..	..	644
44. Aneurysm (except of the Heart) (25)	96	63	46	23	7	18	6	..	..	163
45. Arteriosclerosis and Gangrene (25)	97, 98	806	532	192	105	90	33	I	..	1,759

* No. 17:—4, 5, 12, 15-22, 33, 35, 37, 43, 44; No. 36:—78, 81, 86, 87.

A.—CAUSES OF DEATH.—MALES, 1937—*continued*.

INTERMEDIATE CLASSIFICATION.

Intermediate Classification.	General Classification Numbers.	N.S.W.	Vic.	Q. land.	S. Aus.	W. Aus.	Tas.	Nor. Ter.	A. C. T.	Australia.
46. Other Diseases of the Circulatory System (25)	99-103	39	38	26	12	8	5	..	..	128
47a. Acute Bronchitis (26a)	106 (a) (c)	44	16	18	2	6	6	..	..	92
47b. Chronic Bronchitis (26b)	106 (b) (d)	94	84	46	26	17	9	..	1	277
48. Pneumonias (27)	107-109	1,036	625	400	154	157	96	3	3	2,474
49. Pleurisy (28)	110	39	42	47	9	8	3	..	..	118
50. Other Diseases of the Respiratory System (28) (Tuberculosis excepted)	104, 105, 111-114	109	137	97	58	59	19	2	..	481
51. Ulcer of the Stomach and Duodenum (32b)	117	167	126	53	27	26	8	..	..	407
52. Diarrhoea and Enteritis (under 2 years of age) (29a)	119	77	31	33	11	34	..	..	..	186
53. Diarrhoea and Enteritis (2 years and over) (29b)	120	48	42	26	16	9	6	..	..	147
54. Appendicitis (30)	121	152	82	66	31	12	11	3	..	357
55. Hernia, Intestinal Obstruction (32a)	122	120	94	57	25	42	10	..	..	348
56. Cirrhosis of the Liver (31a)	124	71	48	37	18	17	6	..	..	197
57. Other Diseases of the Liver and Biliary Passages, including Biliary Calculi (31b)	125-127	55	42	22	14	9	3	1	..	146
58. Other Diseases of the Digestive System (32b)	*	81	82	40	10	22	9	..	..	253
59. Nephritis (33)	130-132	862	579	299	154	121	60	3	2	2,080
60. Other Diseases of the Kidneys and Ureters (34)	133	55	52	29	15	11	3	1	..	166
61. Calculi of the Urinary Passages (34)	134	21	16	18	9	5	5	..	..	74
62. Diseases of the Bladder (tumors excepted) (34)	135	19	14	13	6	3	2	..	..	57
63. Diseases of the Urethra, Urinary Abscess, &c. (34)	136	9	8	7	4	6	..	..	..	34
64. Diseases of the Prostate (34)	137	155	115	89	56	34	35	..	..	514
65. Diseases of the Genital Organs, not specified as Venereal	138, 139	..	1	..	..	..	2	..	..	3
71. Diseases of the Skin and Cellular Tissue (37)	151-153	40	33	15	6	7	7	..	..	108
72. Diseases of the Bones and Organs of Locomotion (Tuberculosis and Rheumatism excepted) (37)	154-156	46	32	17	4	9	4	1	..	113
73. Congenital Malformations (Stillbirths not included) (38)	157	145	60	60	28	23	7	..	1	333
74. Congenital Dehility (38)	158	63	38	14	7	12	11	..	..	145
75. Premature Birth (Stillbirths not included) (38)	159	337	188	141	57	47	46	1	..	817
76. Injury at Birth (Stillbirths not included) (38)	160	140	63	30	18	28	10	..	..	280
77. Other Diseases Peculiar to Early Infancy (38)	161	95	87	29	12	11	19	..	2	255
78. Senility (40)	162	287	620	105	135	120	24	2	..	1,392
79. Suicide (40)	163-171	233	131	91	38	61	18	1	..	573
80. Homicide (41)	172-175	30	12	13	5	7	3	..	..	70
81. Accident (42)	176-194	1,077	727	441	238	277	100	10	4	2,874
82. Violent Deaths of which the nature (Accident, Suicide, Homicide) is unknown (42)	195	59	77	4	3	9	1	2	..	155
83. Wounds of War (Execution of Civilians by Belligerent Armies Included) (42)	196, 197	1	1	1	..	..	1	..	..	4
84. Legal Executions (42)	198	..	..	..	..	..	..	..	..	..
85. Cause of Death not Specified or Ill-defined (43)	199, 200	36	21	10	62	11	1	5	1	156
Total Males	..	14,347	9,890	5,368	2,823	2,498	1,241	55	24	36,246

* No. 58:—115, 116, 118, 123, 128, 129.

NOTE.—Figures in parentheses indicate the abridged classification number in each instance

B.—CAUSES OF DEATH.—FEMALES, 1937.

INTERMEDIATE CLASSIFICATION.

Intermediate Classification.	General Classification Numbers	N.S.W.	Vic.	Q. land.	S. Aus.	W. Aus.	Tas.	Nor. Ter.	A. C. T.	Aus- tralia.
1. Typhoid and Paratyphoid Fever (1)	1, 2	6	5	10	..	4	2	..	..	27
2. Typhus Fever (2)	3	..	..	..	..	..	..	..	..	..
3. Small-pox (3)	6	..	..	..	..	..	..	..	..	..
4. Measles (4)	7	4	..	4	..	1	2	..	..	10
5. Scarlet Fever (5)	8	7	4	1	2	1	1	..	..	16
6. Whooping Cough (6)	9	63	20	21	3	6	4	..	..	117
7. Diphtheria (7)	10	67	20	20	14	17	3	..	2	143
8a. Influenza—Pneumonic (8a)	11 (a)	46	34	28	2	3	2	..	..	115
8b. Influenza—Other (8b)	11 (b)	31	8	14	..	5	1	..	..	59
9. Dysentery (14)	13	6	3	8	1	1	..	..	..	19
10. Plague (9)	14	..	..	..	..	..	..	..	..	..
11. Tuberculosis of the Respiratory System (10)	23	344	303	93	103	42	38	..	1	924
12a. Tubercular Meningitis (11a)	24	12	19	..	7	..	8	..	..	46
12b. Other forms of Tuberculosis (11b)	25-32	22	33	8	11	9	8	1	..	92
13. Syphilis (12)	34	8	11	4	3	..	2	..	..	28
14. Purulent Infection, Septicæmia (non-puerperal) (14)	36	16	14	10	6	4	2	..	..	52
15. Malaria (13)	38	..	1	3	..	..	..	..	..	4
16. Diseases due to other Protozoal Parasites or Helminths (14)	39-42	14	9	2	1	3	1	..	..	30
17. Other Infectious and Parasitic Diseases (14)	*	40	56	17	12	10	10	1	1	147
18. Cancer and other Malignant Tumors (15)	45-53	1,373	1,204	408	356	201	142	1	2	3,687
19. Tumors, Non-malignant or of which the nature is not specified (16)	54, 55	117	59	46	22	11	1	..	..	256
20. Acute Rheumatic Fever (20)	56	45	52	16	5	9	6	..	..	133
21. Chronic Rheumatism and Gout (17)	57, 58	39	40	4	12	9	3	..	..	107
22. Diabetes Mellitus (18)	59	284	195	107	69	39	23	..	2	719
23. Nutritional Diseases (20)	60-64	..	..	..	..	..	..	..	..	..
24. Diseases of the Thyroid and Parathyroid Glands (20)	66	94	39	23	15	7	7	..	..	185
25. Other General Diseases (20)	65, 67-69	18	16	5	4	3	..	..	..	49
26. Anaemias (20)	71	34	33	11	4	4	5	..	..	91
27. Leucæmias, Psuedoleucæmias, and other Diseases of the Blood and Blood-making Organs (20)	70, 72-74	57	53	26	5	12	2	..	2	157
28. Alcoholism (acute or chronic) (19)	75	5	4	..	2	1	1	..	..	13
29. Other Chronic Poisonings (20)	76, 77	..	..	5	..	..	..	..	..	5
30. Meningitis (23)	79	30	17	7	2	6	2	..	..	64
31. Progressive Locomotor Ataxia (21) (tabes dorsalis)	80	2	1	1	..	..	..	..	..	4
32. Cerebral Haemorrhage, Cerebral Embolism and Thrombosis (22)	82	513	576	234	189	101	59	..	1	1,673
33. General Paralysis of the Insane (21)	83	12	5	..	1	..	2	..	..	20
34. Dementia Praecox and other Psychoses (23)	84	24	7	13	2	4	4	..	..	54
35. Epilepsy (23)	85	24	10	13	4	7	2	..	..	55
36. Other Diseases of the Nervous System (23)	*	117	86	38	31	21	9	..	..	302
37. Diseases of the Eye, Ear and their Annexa (23)	88, 89	13	12	3	2	1	1	..	..	32
38. Pericarditis (24)	90	5	3	1	..	1	..	..	..	10
39. Acute Endocarditis (24)	91	24	23	12	3	3	1	..	..	66
40. Chronic Endocarditis, Valvular Diseases (24)	92	336	246	98	70	35	42	..	1	828
41. Diseases of the Myocardium (24)	93	1,758	994	398	287	192	139	..	..	3,268
42. Diseases of the Coronary Arteries and Angina Pectoris (24)	94	417	250	105	78	48	23	..	..	927
43. Other Diseases of the Heart (24)	95	120	200	75	30	25	27	..	..	477
44. Aneurysm (except of the Heart) (25)	96	22	30	9	3	3	4	..	..	71
45. Arteriosclerosis and Gangrene (25)	97, 98	742	676	153	141	71	41	..	2	1,826
46. Other Diseases of the Circulatory System (25)	99-103	29	39	18	20	7	4	..	..	117
47a. Acute Bronchitis (26a)	106 (a) (c)	31	21	16	5	3	1	..	..	80

* No. 17:—4, 5, 12, 15-22, 33, 35, 37, 43, 44; No. 36:—78, 81, 86, 87.

B.—CAUSES OF DEATH.—FEMALES, 1937—*continued*.

INTERMEDIATE CLASSIFICATION.

Intermediate Classification.	General Classification Numbers.	N.S.W.	Vic.	Q'land.	S. Aus.	W. Aus.	Tas.	Nor. Ter.	A. C. T.	Aus- tralia.
47b. Chronic Bronchitis (26b) ..	106 (b) (d)	68	86	28	24	7	9	1	..	223
48. Pneumonias (27) ..	107-109	688	525	234	121	99	70	1	..	1,738
49. Pleurisy (28) ..	110	24	15	8	6	5	2	..	..	60
50. Other Diseases of the Respiratory System (28) (Tuberculosis excepted) ..	104, 105, 111-114	76	84	54	49	29	6	..	..	298
51. Ulcer of the Stomach and Duodenum (32b) ..	117	32	28	13	4	3	5	..	..	85
52. Diarrhoea and Enteritis (under 2 years of age) (29a) ..	119	64	27	25	5	24	..	..	..	145
53. Diarrhoea and Enteritis (2 years and over) (29b) ..	120	50	51	41	16	18	10	..	..	186
54. Appendicitis (30) ..	121	85	44	33	21	6	6	..	..	195
55. Hernia, Intestinal Obstruction (32a) ..	122	93	86	43	36	23	6	..	..	287
56. Cirrhosis of the Liver (31a) ..	124	36	27	10	4	6	1	..	..	84
57. Other Diseases of the Liver and Biliary Passages including Biliary Calculi (31b) ..	125-127	118	83	37	23	10	9	..	..	280
58. Other Diseases of the Digestive System (32b) ..	*	71	80	42	15	17	9	1	..	235
59. Nephritis (33) ..	130-132	675	546	276	123	92	45	..	1	1,758
60. Other Diseases of the Kidneys and Ureters (34) ..	133	51	41	23	10	13	3	..	..	141
61. Calculi of the Urinary Pas- sages (34) ..	134	17	7	..	2	1	3	..	..	30
62. Diseases of the Bladder (Tumors excepted) (34) ..	135	14	7	1	4	1	..	..	..	27
63. Diseases of the Urethra, Urinary Abscess, &c. (34) ..	136	..	..	..	..	..	..	..	..	..
64. Diseases of the Prostate (34) ..	137	..	..	..	..	..	..	..	..	..
65. Diseases of the Genital Organs not specified as Venereal (34)	138, 139	57	44	19	6	7	1	1	..	135
66. Accidents of Pregnancy (36) ..	141-143	27	11	12	10	3	2	..	..	65
67. Puerperal Hæmorrhage (36) ..	144	43	17	15	2	9	3	..	..	89
68a. Post-abortive Sepsis (35a) ..	140 (a)	27	5	11	9	2	5	..	..	59
68b. Criminal Abortion (35b) ..	140 (b)	35	41	4	4	6	1	..	..	91
68c. Puerperal Septicæmia (35c) ..	145	25	14	10	7	4	1	1	..	62
69. Toxæmias of Pregnancy: Albu- minuria, Eclampsia, &c. (36) ..	146, 147	43	26	21	9	7	6	..	..	112
70. Other Puerperal Causes (36) ..	148-150	33	15	13	5	5	1	..	1	73
71. Diseases of the Skin and Cellular Tissue (37) ..	151-153	35	14	10	10	7	4	..	..	80
72. Diseases of the Bones and Organs of Locomotion (Tuber- culosis and Rheumatism ex- cepted) (37) ..	154-156	20	17	5	7	5	2	..	..	50
73. Congenital Malformations (Still- births not included) (38) ..	157	116	66	54	17	17	4	..	..	274
74. Congenital Debility (38) ..	158	46	23	7	9	6	11	..	..	102
75. Premature Births (Still-births not included) (38) ..	159	285	151	106	54	38	29	..	..	663
76. Injury at Birth (Still-births not included) (38) ..	160	85	37	24	10	9	8	..	..	173
77. Other Diseases peculiar to early Infancy (38) ..	161	75	50	25	10	9	11	..	..	180
78. Senility (39) ..	162	378	733	171	149	67	29	..	..	1,527
79. Suicide (40) ..	163-171	64	28	31	18	5	2	..	..	148
80. Homicide (41) ..	172-175	18	6	1	3	2	1	..	..	31
81. Accident (42) ..	176-194	319	216	137	68	74	33	..	2	849
82. Violent Deaths of which the Nature (Accident, Suicide, Homicide) is unknown (42) ..	195	17	29	1	3	5	1	..	..	56
83. Wounds of War (Execution of Civilians by Belligerent Armies included) (42) ..	196, 197	..	..	..	..	..	..	..	..	..
84. Legal Executions (42) ..	198	..	..	..	..	..	..	..	..	..
85. Cause of Death not Specified or Ill-defined (43) ..	199, 200	7	12	5	24	2	1	..	..	51
Total Females ..	..	10,888	8,723	3,638	2,424	1,567	984	8	18	28,250

* No. 58:—115, 116, 118, 123, 128, 129.

NOTE.—Figures in parentheses indicate the abridged classification number in each instance.

C.—CAUSES OF DEATH.—PERSONS, 1937.

INTERMEDIATE CLASSIFICATION.

Intermediate Classification.	General Classification Numbers.	N.S.W.	Vic.	Q'land.	S. Aus.	W. Aus.	Tas.	Nor. Ter.	A. C. T.	Aus-tralia.
1. Typhoid and Paratyphoid Fever (1)	1, 2	18	10	19	4	8	3	..	..	62
2. Typhus Fever (2)	3	..	..	2	..	..	..	1	..	3
3. Small-pox (3)	6	..	..	..	..	..	..	..	..	18
4. Measles (4)	7	8	1	0	..	..	3	..	..	33
5. Scarlet Fever (5)	8	17	5	4	3	2	2	..	..	179
6. Whooping Cough (6)	9	93	38	30	5	8	5	..	2	314
7. Diphtheria (7)	10	143	52	39	27	39	12	..	1	267
8a. Influenza—Pneumonic (8a)	11(a)	113	56	60	7	11	4	..	..	133
8b. Influenza—Other (8b)	11(b)	65	24	32	2	9	1	..	..	40
9. Dysentery (14)	13	15	5	11	3	3	3	..	..	2,462
10. Plague (5)	14	..	..	..	..	..	..	..	..	104
11. Tuberculosis of the Respiratory System (10)	23	991	712	276	224	172	85	1	1	190
12a. Tubercular Meningitis (11a)	24	30	36	2	13	5	18	..	..	141
12b. Other forms of Tuberculosis (11b)	25-32	57	58	20	10	18	17	1	..	108
13. Syphilis (12)	31	42	42	19	16	12	9	1	..	9
14. Purulent Infection, Septicæmia (non-puerperal) (14)	36	33	31	23	8	9	4	..	..	65
15. Malaria (13)	38	3	1	3	..	1	..	1	..	361
16. Diseases due to other Protozoal Parasites or Helminths (14)	39-42	26	21	4	5	5	4	..	..	2,870
17. Other Infectious and Parasitic Diseases (14)	*	103	130	53	25	19	29	1	1	2,351
18. Cancer and other Malignant Tumors (15)	45-53	2,870	2,351	1,002	725	445	287	6	5	1,002
19. Tumors, non-malignant or of which the nature is not specified (16)	54, 55	181	101	76	44	21	5	..	..	428
20. Acute Rheumatic Fever (20)	56	83	90	37	12	18	11	..	..	251
21. Chronic Rheumatism and Gout (17)	57, 58	53	56	11	10	11	5	..	..	155
22. Diabetes Mellitus (18)	59	475	394	160	116	56	35	..	3	1,149
23. Nutritional Diseases (20)	60-64	..	..	1	..	..	..	..	..	1
24. Diseases of the Thyroid and Parathyroid Glands (20)	66	106	48	24	17	7	8	..	..	210
25. Other General Diseases (20)	65, 67-69	28	29	13	6	7	1	..	..	84
26. Anaemias (20)	71	69	57	21	12	9	8	1	..	177
27. Leucæmias, Pseudoleucæmias, and other Diseases of the Blood and Blood-making Organs (20)	70, 72-74	145	100	55	24	27	9	1	3	373
28. Alcoholism (acute or chronic) (19)	75	24	11	18	7	2	2	..	..	64
29. Other Chronic Poisonings (20)	76, 77	5	1	11	..	1	..	..	..	18
30. Meningitis (23)	79	65	32	26	11	16	4	..	..	154
31. Progressive locomotor ataxia (21) (tabes dorsalis)	80	33	9	8	2	5	1	..	..	58
32. Cerebral Hemorrhage, Cerebral Embolism and Thrombosis (22)	82	939	685	415	310	202	109	1	1	2,962
33. General Paralysis of the Insane (21)	83	44	21	15	6	..	4	..	1	91
34. Dementia Præcox and other Psychoses (23)	84	36	11	27	7	1	5	..	..	90
35. Epilepsy (23)	85	72	26	28	11	6	6	..	..	149
36. Other Diseases of the Nervous System (23)	*	249	173	108	53	38	17	..	..	628
37. Diseases of the Eye, Ear and their Annexa (23)	88, 89	38	26	12	6	9	1	..	..	95
38. Pericarditis (24)	90	14	9	5	..	4	1	..	..	33
39. Acute Endocarditis (24)	91	60	39	15	6	3	5	..	..	138
40. Chronic Endocarditis, Valvular Diseases (24)	92	733	504	268	144	91	100	3	2	1,815
41. Diseases of the Myocardium (24)	93	4,074	2,111	1,038	598	493	281	1	..	8,599
42. Diseases of the Coronary Arteries and Angina Pectoris (24)	94	1,297	840	394	231	167	81	..	2	2,986
43. Other Diseases of the Heart (24)	95	339	191	202	59	99	51	..	..	1,121
44. Aneurysm (except of the heart) (25)	96	85	76	32	10	21	19	..	..	231
45. Arteriosclerosis and Gangrene (25)	97, 98	1,348	1,208	315	249	194	24	1	2	3,555
46. Other Diseases of the Circulatory System (25)	99-103	68	77	44	32	15	0	..	..	245
47a. Acute Bronchitis (26a)	106(a) (c)	75	37	34	7	9	10	..	..	172
47b. Chronic Bronchitis (26b)	106(b) (d)	162	170	74	50	24	18	1	1	500
48. Pneumonias (27)	107-109	1,724	1,150	634	275	256	166	4	3	4,212

* No. 17:—4, 5, 12, 15-22, 33, 35, 37, 43, 44; No. 36:—78, 81, 86, 87.

C.—CAUSES OF DEATH.—PERSONS, 1937—*continued*.

INTERMEDIATE CLASSIFICATION.

Intermediate Classification.	General Classification Numbers.	N.S.W.	Vic.	Q'land	S. Aus.	W. Aus.	Tas.	Nor. Ter.	A. C. T.	Aus- tralia.
49. Pleurisy (28)	110	63	57	25	15	13	5	..	..	178
50. Other Diseases of the Respiratory System (28) (Tuberculosis excepted)	104, 105 111-114	185	221	151	107	88	25	2	..	779
51. Ulcer of the Stomach and Duodenum (32b)	117	199	154	66	31	29	13	..	..	492
52. Diarrhoea and Enteritis (under 2 years of age) (29a)	119	141	58	58	16	58	..	..	..	331
53. Diarrhoea and Enteritis (2 years and over) (29b)	120	98	93	67	32	27	16	..	..	333
54. Appendicitis (30)	121	237	126	99	52	18	17	3	..	552
55. Hernia, Intestinal Obstruction (32a)	122	213	180	100	61	65	16	..	..	635
56. Cirrhosis of the Liver (31a)	124	107	75	47	22	23	7	..	..	281
57. Other Diseases of the Liver and Biliary Passages, including Biliary Calculi (31b)	125-127	173	125	59	37	19	12	1	..	426
58. Other Diseases of the Digestive System (32b)	*	152	162	82	34	39	18	1	..	488
59. Nephritis (33)	130-132	1,537	1,125	575	277	213	105	3	3	3,838
60. Other Diseases of the Kidneys and Ureters (34)	133	106	93	52	25	24	6	1	..	307
61. Calculi of the Urinary Passages (34)	134	38	23	18	11	6	8	..	..	104
62. Diseases of the Bladder (Tumors excepted) (34)	135	33	21	14	10	4	2	..	..	84
63. Diseases of the Ureters, Urinary Abscess, etc. (34)	136	4	8	7	4	6	..	..	..	34
64. Diseases of the Prostate (34)	137	155	145	89	56	34	35	..	..	514
65. Diseases of the Genital Organs, not specified as Venereal (34)	138, 139	57	45	19	6	7	3	1	..	138
66. Accidents of Pregnancy (36)	141-143	27	11	12	10	3	2	..	..	65
67. Puerperal Haemorrhage (36)	144	43	17	15	2	9	3	..	..	89
68a. Post-abortive Sepsis (35a)	140(a)	27	5	11	9	2	5	..	..	59
68b. Criminal Abortion (35b)	140(b)	35	41	4	4	6	1	..	..	91
68c. Puerperal Septicaemia (35c)	145	25	14	10	7	4	1	1	..	62
69. Toxaemias of Pregnancy: Al- buminuria, Eclampsia, etc. (36)	146, 147	43	26	21	9	7	6	..	..	112
70. Other Puerperal Causes (36)	148-150	33	15	13	5	5	1	..	1	73
71. Diseases of the Skin and Cellular Tissue (37)	151-153	75	47	25	16	14	11	..	..	188
72. Diseases of the Bones and Organs of Locomotion (Tuberculosis and Rheumatism excepted) (37)	154-156	66	40	22	11	14	6	1	..	169
73. Congenital Malformations (Still- births not included) (38)	157	261	135	114	45	40	11	..	1	687
74. Congenital Debility (38)	158	109	61	21	16	18	22	..	..	247
75. Premature Birth (Still-births not included) (38)	159	622	339	247	111	85	75	1	..	1,480
76. Injury at Birth (Still-births not included) (38)	160	225	100	54	28	37	13	..	..	462
77. Other Diseases peculiar to Early Infancy (38)	161	170	137	54	22	20	30	..	2	435
78. Senility (39)	162	665	1,362	366	284	187	53	2	..	2,919
79. Suicide (40)	163-171	297	159	122	56	66	20	1	..	721
80. Homicide (41)	172-175	54	18	14	8	9	4	..	..	107
81. Accident (42)	176-194	1,396	943	578	306	351	133	10	6	3,723
82. Violent Deaths of which the Nature (Accident, Suicide, Homicide) is unknown (42)	195	76	106	5	6	14	2	2	..	211
83. Wounds of War (Execution of 'villians' by Belligerent Armies included) (42)	196, 197	1	1	1	..	..	1	..	..	4
84. Legal Executions (42)	198	..	..	..	..	..	..	..	..	..
85. Cause of Death not Specified or Ill-defined (43)	199,200	43	33	24	86	13	2	5	1	207
Total	..	25,235	18,613	9,006	5,247	4,065	2,225	63	42	64,496

* No. 58: 115, 116, 118, 123, 128, 129.

NOTE.—Figures in parentheses indicate the abridged classification number in each instance.

D.—CAUSES OF DEATH.—ABRIDGED CLASSIFICATION, AUSTRALIA, 1933 TO 1937.

Abridged Classification.	General Classification Numbers.	1933.	1934.	1935.	1936.	1937.	1937— Rate per 1,000,000 Population.
1. Typhoid Fever	1, 2	64	68	63	58	62	9
2. Typhus Fever	3	3	..	6	8	3	..
3. Small-pox	6	..	..	..	..	..	..
4. Measles	7	105	77	129	43	18	3
5. Scarlet Fever	8	80	45	26	56	33	5
6. Whooping Cough	9	124	443	162	257	179	26
7. Diphtheria	10	495	418	412	454	314	46
8a. Influenza—Pneumonic	11(a)	561	646	871	323	261	38
8b. Influenza—Other	11(b)	318	297	297	151	133	20
10. Tuberculosis of the Respiratory System	23	2,596	2,588	2,553	2,537	2,462	360
11a. Tubercular Meningitis	24	100	123	105	109	104	15
11b. Other Tuberculous Diseases	25-32	228	196	195	190	190	28
12. Syphilis	34	158	173	162	169	141	21
13. Malaria	38	12	28	17	11	9	1
14. Other Infectious or Parasitic Diseases	*	517	501	487	496	574	84
15. Cancer and other Malignant Tumours	45-53	6,971	7,080	7,310	7,551	7,691	1,126
19. Tumors, Non-Malignant or of Unspecified Nature	54-55	347	356	409	449	428	63
17. Chronic Rheumatism, Gout	57, 58	158	192	174	152	155	23
18. Diabetes Mellitus	59	1,060	1,046	1,088	1,052	1,149	168
19. Acute and Chronic Alcoholism	75	48	42	41	54	64	9
20. Other General Diseases	*	1,041	1,101	1,121	1,194	1,114	163
21. Locomotor Ataxy, General Paralysis of Insane	80, 33	170	143	162	157	140	22
22. Cerebral Hæmorrhage, Embolism, etc.	82	3,206	3,124	3,029	3,030	2,962	433
23. Other Diseases of Nervous System and Sense Organs	*	1,199	1,319	1,172	1,203	1,116	163
24. Diseases of the Heart	90-95	12,002	12,907	13,862	13,782	14,692	2,150
25. Other Diseases of the Circulatory System	96-103	2,778	3,122	3,118	3,750	4,064	595
26a. Acute Bronchitis	106(a)(c)	234	227	180	190	172	25
26b. Chronic Bronchitis	106(b)(d)	577	592	606	542	500	73
27. Pneumonia (all forms)	107-109	3,934	4,358	4,629	4,306	4,212	616
28. Other Diseases of the Respiratory System	104, 105, 110-114	1,003	1,080	994	1,039	957	140
29a. Diarrhœa and Enteritis (under two years of age)	119	339	385	317	358	331	48
29b. Diarrhœa and Enteritis (two years and over)	120	364	427	314	336	333	49
30. Appendicitis	121	517	546	608	554	552	81
31a. Cirrhosis of the Liver	124	254	259	289	284	281	41
31b. Other Diseases of the Liver and Biliary Canals	125-127	486	484	457	476	426	62
32a. Hernia, Intestinal Obstruction	122	539	582	598	551	635	93
32b. Other Diseases of the Digestive System	*	882	906	913	986	980	141
33. Nephritis	130-132	3,562	3,725	3,721	3,695	3,838	562
34. Other Diseases of the Genito-Urinary System	133-139	1,041	1,068	1,173	1,190	1,181	173
35a. Post-Abortive Sepsis	140(a)	68	63	58	86	59	9
35b. Criminal Abortion	140(b)	72	96	98	127	91	13
35c. Puerperal Septicæmia	145	92	98	89	125	62	9
36. Other Diseases of Pregnancy and Labour	{ 141-144. 146-150. }	339	374	315	358	330	50
37. Diseases of the Skin, Bones, etc.	151-156	349	359	325	368	357	52
38. Congenital Debility, Malformations, Premature Birth, etc.	157-161	3,142	3,171	3,161	3,403	3,231	473
39. Senility	162	2,887	2,878	2,756	2,884	2,919	427
40. Suicide	163-171	790	826	791	780	721	106
41. Homicide	172-175	97	108	106	97	107	16
42. Accidental or Violent Death (except Suicide and Homicide)	176-198	2,079	3,270	3,411	3,600	3,938	576
43. Non-specified and Ill-Defined Causes	199, 200	310	310	359	333	207	30
Total	..	59,117	62,229	63,599	63,932	64,496	9,438

* No. 14:—4, 5, 12, 13, 15-22, 33, 35-37, 39-44; No. 20:—56, 60-74, 76, 77; No. 23:—78, 79, 81, 84-89; No. 32b:—115-118, 123, 128, 129.

E.—CAUSES OF DEATH.—ABRIDGED CLASSIFICATION, AUSTRALIA, NUMBERS AND RATES.

Abridged Classification.	General Classification Numbers.	Number of Deaths.			Average Rate per 1,000,000 of Population.		
		1911-15.	1921-25.	1931-35.	1911-15.	1921-25.	1931-35.
1. Typhoid Fever	1, 2	2,848	1,209	379	119	42	12
2. Typhus Fever	3	..	4	15	..	..	1
3. Small-pox	6	6	4	1	..	..	..
4. Measles	7	1,505	582	391	63	20	12
5. Scarlet Fever	8	237	235	331	10	8	10
6. Whooping Cough	9	1,057	1,612	1,186	69	57	36
7. Diphtheria	10	3,077	2,565	2,083	154	90	63
8a. Influenza—Pneumonic	11(a)	1,894	1,808	2,859	79	64	86
8b. Influenza—Other	11(b)		1,344	1,326		47	40
9. Plague	14	1	72	..	..	3	..
10. Tuberculosis of the Respiratory System	23	15,737	15,321	13,221	659	538	400
11a. Tubercular Meningitis	24	1,156	876	618	48	31	19
11b. Other Tuberculous Diseases	25-32	1,460	1,404	1,016	61	49	31
12. Syphilis	34	837	632	803	35	22	24
13. Malaria	38	112	150	97	5	5	3
14. Other Infectious or Parasitic Diseases	*	2,820	3,063	2,649	118	108	80
15. Cancer and other Malignant Tumours	45-53	17,838	25,794	34,825	746	906	1,053
16. Tumours, Non-Malignant or of Unspecified Nature	54, 55	546	633	1,817	23	22	55
17. Chronic Rheumatism, Gout	57, 58	552	862	847	23	30	26
18. Diabetes Mellitus	59	2,322	3,355	5,095	97	118	154
19. Acute and Chronic Alcoholism	75	920	763	235	38	27	7
20. Other General Diseases	*	4,039	5,355	5,437	169	188	164
21. Locomotor Ataxy, General Paralysis of Insane	80, 83	1,074	1,118	797	45	39	24
22. Cerebral Hemorrhage, Embolism, etc.	82	10,957	13,637	15,264	458	479	461
23. Other Diseases of Nervous System and Sense Organs	*	12,550	10,323	5,971	525	363	181
24. Diseases of the Heart	90-95	24,358	31,588	60,227	1,019	1,109	1,817
25. Other Diseases of the Circulatory System	96-103	7,869	7,191	14,511	329	253	438
26a. Acute Bronchitis	106(a)(c)	2,250	1,580	1,078	94	56	33
26b. Chronic Bronchitis	106(b)(d)	4,962	4,053	2,966	208	142	100
27. Pneumonia (all forms)	107-109	15,201	18,400	20,157	636	646	668
28. Other Diseases of the Respiratory System	104, 105, 110-114	4,883	5,751	5,045	192	203	152
29a. Diarrhœa and Enteritis (under two years of age)	119	15,207	9,866	2,043	636	346	62
29b. Diarrhœa and Enteritis (two years and over)	120	4,027	3,144	1,922	169	110	58
30. Appendicitis	121	1,761	2,035	2,680	74	71	81
31a. Cirrhosis of the Liver	124	1,932	1,531	1,321	81	54	40
31b. Other Diseases of the Liver and Biliary Calculi	125-127	1,145	1,706	2,326	60	63	70
32a. Hernia, Intestinal Obstruction	122	2,335	2,018	2,702	98	93	84
32b. Other Diseases of the Digestive System	*	3,008	1,053	4,104	166	142	133
33. Nephritis	130-132	10,751	12,803	17,754	450	450	536
34. Other Diseases of the Genito-Urinary System	133-139	3,005	4,146	5,388	128	146	163
35a. Post-Abortive Sepsis	140(a)	†	†	336	†	†	10
35b. Criminal Abortion	140(b)	†	†	425	†	†	13
35c. Puerperal Septicæmia	145	1,072	1,138	466	45	40	14
36. Other Diseases of Pregnancy and Labour	141-144, 146-150	2,060	2,321	1,833	86	82	56
37. Diseases of the Skin, Bones, etc.	151-156	904	1,556	1,606	42	55	51
38. Congenital Debility, Malformations, Premature Birth, etc.	157-161	21,410	21,511	15,909	896	755	481
39. Senility	162	20,904	20,429	14,021	875	717	424
40. Suicide	163-171	3,123	3,106	3,988	131	109	121
41. Homicide	172-175	446	439	530	19	15	16
42. Accidental or Violent Death (except Suicide and Homicide)	176-198	14,842	13,875	15,639	621	487	472
43. Non-specified and Ill-Defined Causes	199, 200	3,026	3,460	1,542	127	122	46
Total	..	256,337	271,171	298,262	10,726	9,522	9,011

* No. 14:—4, 5, 12, 13, 15-22, 33, 35-37, 39-44; No. 20:—56, 60-74, 76, 77; No. 23:—78, 79, 81, 84-89,
 No. 32b:—115-118, 123, 128, 129

† Not available, included in 35c and 36.

13. **Deaths from Principal Specific Causes.**—(i) *General.* In the preceding tables particulars have been given for each of the causes of death comprising the Intermediate and the Abridged Classifications. The more important of these causes are treated in detail hereunder. The intermediate classification number is indicated in parenthesis for each cause or group of causes.

(ii) *Tuberculosis of the Respiratory System (11).* Of the various forms of tuberculosis prevalent in Australia, phthisis, or tuberculosis of the lungs, has attracted the most attention. The intimate relation, however, between tuberculosis of the lungs and of other parts of the respiratory system renders it desirable that all forms of tuberculosis of the respiratory system should be brought under one head for investigations concerning the age incidence and duration of this disease.

The decline in the toll levied by this disease on the community is plainly disclosed by the table on page 418, which shows how both the number of deaths and the death rate have declined since the period 1911 to 1915.

During 1937 there were 2,462 deaths (1,538 males and 924 females) from tuberculosis of the respiratory system, which compares favourably with the average of 2,587 for the preceding five years. The deaths in 1937 represented a rate of 360 per 1,000,000 persons living.

(iii) *Tuberculosis of the Meninges (12a).* The number of deaths ascribed to this cause in 1937 was 104, which is below the average of 115 for the preceding five years.

(iv) *Other Forms of Tuberculosis (12b).* The 190 deaths in 1937 comprised the following:—Tuberculosis of the intestines and peritoneum, 32; vertebral column, 51; other bones and joints, 18; skin and sub-cutaneous cellular tissue, 1; lymphatic system, 6; genito-urinary system, 27; other organs, 1; and disseminated tuberculosis—acute 43, chronic 1 and unspecified 10.

(v) *All Forms of Tuberculosis (11, 12)—(a) General.* The total number of deaths in 1937 was 2,756, viz., 1,694 males and 1,062 females.

(b) *Ages at Death.* The following table shows the ages of these 2,756 persons; corresponding figures are also given for the year 1911:—

TUBERCULAR DISEASES.—DEATHS IN AGE-GROUPS, AUSTRALIA.

Ages.	1911.			1937.		
	Males.	Females.	Total.	Males.	Females.	Total.
Under 5 years ..	124	114	238	43	24	67
5 years and under 10 ..	30	31	61	12	8	20
10 " " 15 ..	44	42	86	11	16	27
15 " " 20 ..	70	148	218	35	63	98
20 " " 25 ..	168	260	428	69	130	199
25 " " 30 ..	219	255	474	105	163	268
30 " " 35 ..	220	206	426	145	138	283
35 " " 40 ..	187	176	363	149	118	267
40 " " 45 ..	246	140	386	147	93	240
45 " " 50 ..	223	100	323	197	71	268
50 " " 55 ..	164	49	213	199	51	250
55 " " 60 ..	140	49	189	174	54	228
60 " " 65 ..	89	43	132	168	36	204
65 " " 70 ..	64	37	101	127	39	166
70 " " 75 ..	42	19	61	65	31	96
75 " " 80 ..	15	6	21	36	19	55
80 " " over ..	7	6	13	12	7	19
Age unspecified ..	3	..	3	..	1	1
Total ..	2,055	1,681	3,736	1,694	1,062	2,756

(c) *Occupations at Death, Males.* A tabulation of occupations of the males who died from tubercular diseases in 1921, 1931 and 1937, together with the percentage which each class bears to the total male deaths from these diseases, is given hereunder:—

OCCUPATIONS OF MALES WHO DIED FROM TUBERCULAR DISEASES.—
AUSTRALIA.

Occupation Group.	Number of Male Deaths.			Percentage of Total.		
	1921.	1931.	1937.	1921.	1931.	1937.
				%	%	%
Professional	167	107	108	7.69	5.83	6.37
Domestic	95	64	63	4.38	3.48	3.72
Commercial	292	270	159	13.45	14.71	9.39
Transport and Communication	165	170	151	7.60	9.26	8.91
Industrial	784	694	307	36.11	37.80	18.12
Agricultural, Pastoral, Mining, etc.	404	303	262	18.61	16.50	15.47
Indefinite	80	157	(a) 558	3.68	8.55	(a) 32.94
Dependent	184	71	86	8.48	3.87	5.08
Total Male Deaths ..	2,171	1,836	1,694	100.00	100.00	100.00

(a) Includes 423 (24.97 per cent.) clerks, labourers, etc., not specified as belonging to any industry, who were formerly included under "Commercial" or "Industrial".

(d) *Length of Residence in Australia.* The length of residence in Australia of persons who died from tubercular diseases in 1937 is given in the next table:—

LENGTH OF RESIDENCE IN AUSTRALIA OF PERSONS WHO DIED FROM
TUBERCULAR DISEASES, 1937.

Length of Residence in Australia.	Male.	Fem.	Total.	Length of Residence in Australia.	Male.	Fem.	Total.
Born in Australia ..	1,282	934	2,216	Resident 10 years & under 15	54	22	76
Resident under 1 year ..	4	..	4	" 15 " " 20	37	10	56
" 1 year	1	..	1	" 20 " " & over ..	227	65	292
" 2 years	1	..	2	Length of residence not stated	66	7	73
" 3 "	4	..	5				
" 4 "	4	2	6				
" 5 " and under 10	14	11	25	Total Deaths ..	1,694	1,062	2,756

The preceding table and the table on page 400 show that among persons not native born who have lived less than five years in Australia, 157 deaths occurred, and of these, 18 or 11.5 per cent. were due to tubercular diseases.

(e) *Death Rates.* In order to show the relative occurrence of tuberculosis in the several States and the change in the incidence in recent years the death rates from tubercular diseases in respect of the years 1911 and 1937 are given in the following table, together with the proportion which deaths from tuberculosis bear to 10,000 deaths from all causes:—

TUBERCULOSIS (ALL FORMS).—DEATH RATES (a) AND PROPORTION OF TOTAL DEATHS.

State or Territory.	Death Rate per 100,000 of Mean Population.					
	1911.			1937.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
New South Wales	85	67	76	51	28	40
Victoria	101	97	99	49	38	43
Queensland	74	58	67	38	21	30
South Australia	81	91	86	46	41	44
Western Australia	84	71	78	60	24	43
Tasmania	90	82	86	56	47	51
Northern Territory	293	..	241	27	57	37
Australian Capital Territory	..	131	56	..	22	10
Australia	88	78	83	49	32	40

(a) Number of deaths from tuberculosis per 100,000 of mean population.

TUBERCULOSIS (ALL FORMS).—DEATH RATES AND PROPORTION OF TOTAL DEATHS—*continued.*

Proportion per 10,000 Deaths from all Causes.

State or Territory.	1911.			1937.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
New South Wales	737	737	737	488	347	427
Victoria	801	936	862	456	497	433
Queensland	613	648	626	367	278	331
South Australia	775	995	877	478	499	488
Western Australia	718	870	770	576	325	480
Tasmania	839	854	846	532	549	539
Northern Territory	1,356	..	1,231	182	1,250	317
Australian Capital Territory	..	2,000	1,000	..	556	238
Australia	745	829	780	467	376	427

(f) *Death Rates, Various Countries.* The following comparative table for various countries shows that Australia occupies a very favourable position as regards the death rate from this disease :—

TUBERCULOSIS.—DEATHS PER 100,000 PERSONS LIVING, VARIOUS COUNTRIES.

Country.	Year.	Respiratory System.	All Forms.	Country.	Year.	Respiratory System.	All Forms.
Queensland ..	1936	32	34	Germany ..	1934	61	72
Union of South Africa (Europeans)	1936	30	34	Scotland ..	1936	55	74
New South Wales ..	1936	36	39	Belgium ..	1935	57	75
South Australia ..	1936	35	40	Italy ..	1936	65	87
Australia ..	1936	37	42	Switzerland ..	1936	73	95
New Zealand ..	1936	36	46	Sweden ..	1934	85	103
Western Australia ..	1936	43	46	Northern Ireland ..	1936	78	103
Victoria ..	1936	41	47	Norway ..	1935	86	106
Netherlands ..	1936	36	50	Spain ..	1935	(a)	107
Denmark ..	1934	43	55	Ireland (Eire) ..	1936	92	117
United States ..	1936	51	56	Czechoslovakia ..	1936	114	129
Egypt ..	1936	45	56	France ..	1933	113	131
Tasmania ..	1936	48	58	Japan ..	1936	105	142
Ceylon ..	1936	56	(a)	Greece ..	1933	122	152
Canada ..	1935	50	61	Hungary ..	1936	127	152
England and Wales	1936	58	69	Poland (b) ..	1936	134	153
Great Britain and Northern Ireland	1936	58	71	Finland ..	1935	154	179

* (a) Not available.

(b) In towns with over 100,000 inhabitants.

(vi) *Cancer and other Malignant Tumours (18).*—(a) *General.* The number of deaths from cancer increased continuously to 6,250 in 1926, declined slightly to 6,120 in 1930, but rose again progressively to 7,601 in 1937. Of the deaths registered during 1937, 4,004 were of males, viz., 1,497 in New South Wales, 1,147 in Victoria, 504 in Queensland, 360 in South Australia, 244 in Western Australia, 145 in Tasmania, 5 in the Northern Territory, and 3 in the Australian Capital Territory; while 3,687 were of females, viz.,

1,373 in New South Wales, 1,204 in Victoria, 408 in Queensland, 356 in South Australia, 201 in Western Australia, 142 in Tasmania, 1 in the Northern Territory, and 2 in the Australian Capital Territory.

(b) *Type and Seat of Disease.* Tables showing the type and seat of disease, in conjunction with age and with conjugal condition, of the persons dying from cancer in 1937 will be found in Australian Demography Bulletin, No. 55. A summary regarding type and seat of disease for the year 1937 is given below. It may be pointed out that the significance of the numbers of deaths shown for the various types of cancer enumerated hereunder is doubtful owing to the fact that in the absence of a post-mortem it is impracticable for the certifying doctor in the majority of cases to make an accurate diagnosis as to type in the detail required for the following classification. On this account it is proposed to discontinue the use of the present classification and to adopt as soon as possible a simpler grouping showing only the more important types of cancer.

DEATHS FROM CANCER.—TYPE AND SEAT OF DISEASE. AUSTRALIA, 1937.

Type of Disease.	Males.	Fem.	Persons.	Seat of Disease.	Males.	Fem.	Persons.
Cancer	361	379	740	Buccal Cavity and			
Carcinoma—				Pharynx ..	355	56	411
Carcinoma Simplex	3,008	2,780	5,788	Digestive Tract and			
Epithelioma ..	146	72	218	Peritoneum—			
Scirrhus ..	2	18	20	Stomach and			
Rodent Ulcer ..	38	21	59	Duodenum ..	1,142	600	1,742
Adeno-Carcinoma	26	47	73	Rectum ..	225	159	384
Colloid Carcinoma	2	4	6	Colon ..	277	320	597
Paget's Disease ..	2	..	2	Other ..	662	641	1,303
Sarcoma—				Respiratory Organs	237	93	330
Sarcoma ..	152	116	268	Uterus ..	..	532	532
Myeloma ..	3	5	8	Other Female Geni-			
Endothelioma ..	7	5	12	tal Organs ..	..	205	205
Melanoma—				Breast ..	8	701	709
Melanotic Sarcoma	23	13	36	Male Genito-Urinary			
Melano-Carcinoma	8	12	20	Organs ..	657	..	657
Embryonic Tu-				Skin ..	137	70	207
mours—				Other or Unspecified			
Hypernephroma	16	16	32	Organs ..	304	310	614
Teratoma ..	2	..	2				
Malignant Disease..	208	199	407				
Total Deaths	4,004	3,687	7,691	Total Deaths	4,004	3,687	7,691

(c) *Ages at Death.* The ages of the persons who died from cancer in 1911 and 1937 are given below. Inferences drawn from the great increase in the number of deaths from cancer in 1937 compared with 1911 need qualification in view of the altered age constitution of the population since the earlier year. The number of people reaching the older ages at which cancer risks are greatest has more than doubled in the last twenty years, and it is only in the extreme old age groups from 60 onwards that the rate of mortality has definitely increased. For all groups up to age 60 there has been no increase in mortality rates since 1911. In the higher age groups no increase has been recorded in the female rate while the rate for males has shown only a slight increase. It is also probable that a proportion of the increased number of deaths recorded from cancer in recent years has been due to more correct diagnosis and certification on the part of medical practitioners rather than to any actual increase in the disease itself.

DEATHS FROM CANCER.—AGES, AUSTRALIA.

Ages.	1911.			1937.		
	Males.	Females.	Total.	Males.	Females.	Total.
Under 15 years	21	8	29	17	20	37
15 years and under 20 ..	10	6	16	8	7	15
20 " " 25 ..	10	7	17	15	14	29
25 " " 30 ..	12	17	29	18	28	46
30 " " 35 ..	25	35	60	29	42	71
35 " " 40 ..	29	59	88	54	91	145
40 " " 45 ..	81	100	181	102	206	308
45 " " 50 ..	132	173	305	181	287	468
50 " " 55 ..	208	203	411	270	333	603
55 " " 60 ..	203	179	382	385	384	769
60 " " 65 ..	243	177	420	538	465	1,003
65 " " 70 ..	306	194	500	668	486	1,154
70 " " 75 ..	203	160	363	702	537	1,239
75 " " 80 ..	150	136	286	639	467	1,106
80 " " 85 ..	83	67	150	273	215	488
85 years and over ..	44	39	83	105	105	210
Unspecified	1	..	1	..	..	..
Total Deaths	1,761	1,560	3,321	4,004	3,687	7,691

(d) *Occupations.* A tabulation in summarized form of occupations of the males who died from cancer in 1921, 1931 and 1937, together with the percentage of each class to the total male deaths from this disease, is given hereunder :—

OCCUPATION OF MALES WHO DIED FROM CANCER.—AUSTRALIA.

Occupation Group.	Number of Male Deaths.			Percentage of Total.		
	1921.	1931.	1937.	1921.	1931.	1937.
				%	%	%
Professional	133	188	252	5.45	5.40	6.29
Domestic	76	97	106	3.11	2.78	2.65
Commercial	275	446	415	11.27	12.80	10.36
Transport and Commu- nication	212	295	347	8.69	8.47	8.67
Industrial	940	1,346	801	38.52	38.63	20.01
Agricultural, Pastoral, Mining, etc.	639	843	885	26.19	24.20	22.10
Indefinite	129	130	21,177	5.29	3.73	29.40
Dependent	36	139	21	1.48	3.99	0.52
Total Male Deaths ..	2,440	3,484	4,004	100.00	100.00	100.00

(a) Includes 861 (21.50 per cent.) clerks, labourers, etc., not specified as belonging to any industry, who were formerly included under "Commercial" or "Industrial".

(e) *Death Rates.* The following table shows the death rates per 100,000 of mean population from cancer in each State for the years 1911 and 1937. The substantial increase in the death rate since 1911 is reflected in both sexes and in all States :—

DEATHS FROM CANCER.—RATES.(a)

State or Territory.	1911.			1937.		
	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales ..	77	71	74	110	103	107
Victoria	80	85	82	125	128	127
Queensland	71	56	64	115	87	101
South Australia ..	70	76	73	125	121	123
Western Australia ..	65	57	62	102	94	98
Tasmania	77	60	69	122	123	123
Northern Territory ..	37	..	30	137	57	111
Australian Capital Territory	99	..	56	54	43	49
Australia	75	72	74	116	109	113

(a) Number of deaths from cancer per 100,000 of mean population.

(f) *Proportion of Total Deaths.* While the death rate from all causes has diminished substantially in recent years, the rate from cancer has arisen almost continuously, the result being that out of 10,000 deaths from all causes, 1,192 were due to cancer in 1937, as against 693 per 10,000 total deaths in 1911.

DEATHS FROM CANCER.—PROPORTIONS PER 10,000 DEATHS.

State or Territory.	1911.			1937.		
	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales ..	662	783	713	1,043	1,261	1,137
Victoria	637	819	719	1,160	1,380	1,263
Queensland	586	628	602	1,107	1,121	1,113
South Australia ..	675	828	745	1,307	1,469	1,382
Western Australia ..	557	700	605	977	1,283	1,095
Tasmania	723	629	680	1,168	1,443	1,290
Northern Territory ..	170	..	154	909	1,250	952
Australian Capital Territory	2,000	..	1,000	1,250	1,111	1,190
Australia	638	769	693	1,105	1,305	1,192

(g) *Comparison with Tuberculosis.* In recent years the death rate from tuberculosis has shown a tendency to decrease, while that from cancer has displayed an almost continuous increase. The table hereunder shows that for each of the periods under review the decline in the death rate from tuberculosis has been accompanied by an almost equal increase in the rate for cancer. Thus in the thirty-five years comprised in the quinquennial averages shown below the death rate for tuberculosis declined by 44 while the rate for cancer increased by 42 per 100,000 persons. This equal but opposite tendency may be demonstrated by stating that the death rate from tuberculosis and cancer combined remains almost constant from period to period, the figures being :—1901-05, 152 per 100,000; 1906-10, 145; 1911-1915, 152; 1916-20, 154; 1921-25, 153; 1931-35, 150; and 1937, 153.

TUBERCULOSIS AND CANCER.—DEATH RATES(a)—AUSTRALIA.

Period.	Death Rate (a) from Tuberculosis.			Death Rate (a) from Cancer.		
	Males.	Females.	Total.	Males.	Females.	Total.
1901-05 ..	100	77	89	64	61	63
1906-10 ..	81	69	75	71	70	70
1911-15 ..	84	69	77	75	74	75
1916-20 ..	84	59	71	86	80	83
1921-25 ..	71	52	62	93	88	91
1931-35 ..	52	37	45	108	102	105
1937 ..	49	32	40	116	109	113

(a) Number of deaths per 100,000 of mean population.

(h) *Death Rates, Various Countries.* The following table shows the Australian death rate from cancer in comparison with that for other countries :—

CANCER.—DEATHS PER 100,000 PERSONS LIVING, VARIOUS COUNTRIES.

Country.	Year.	Rate.	Country.	Year.	Rate.
Ceylon	1936	10	Australia	1936	111
Egypt	1936	26	New Zealand	1936	118
Greece	1933	43	Ireland (Eire)	1936	121
Japan	1936	48	Czechoslovakia	1936	126
Spain	1935	68	Sweden	1934	127
Finland	1935	79	Norway	1935	127
Italy	1936	84	Northern Ireland	1936	130
France	1934	96	Netherlands	1936	131
Union of South Africa (Europeans)	1936	97	Germany	1934	142
Canada	1935	102	Denmark	1935	146
Poland (a)	1936	104	Scotland	1936	159
Belgium	1935	109	Switzerland	1936	161
Hungary	1936	110	Great Britain and Northern Ireland	1936	168
United States	1936	111	England and Wales	1936	169

(a) In towns with over 100,000 inhabitants.

(vii) *Diseases of the Heart* (38 to 43). The number of deaths in 1937 was 14,692 viz., 8,616 males and 6,076 females. Of these deaths, 33 were attributed to pericarditis, 125 to acute infective endocarditis, 13 to other acute endocarditis, 347 to aortic valve disease, 656 to mitral valve disease, 74 to aortic and mitral valve disease, 198 to endocarditis not returned as acute or chronic, 570 to other or unspecified valve disease, 146 to acute myocarditis, 96 to fatty heart, 6,392 to other myocardial degeneration, 1,935 to myocarditis not returned as acute or chronic, 2,431 to diseases of coronary arteries, 162 to angina pectoris with record of coronary disease, 393 to other angina pectoris, 313 to disordered action of the heart, 42 to cardiac dilatation (cause unspecified), and 766 to heart disease undefined. The sex and territorial distribution of the deaths will be found in the tables on pages 411 to 416. This class is the largest among causes of death, the death rate having grown from 1,019 per million in 1911-15 to 1,817 in 1931-35 and 2,150 in 1937. The increase in the numbers of deaths recorded from heart diseases has been particularly pronounced during the past six years. The rapid increase in mortality is partly a reflection of the ageing of the population, but has been influenced mainly by improved diagnosis and certification by medical practitioners. Many deaths of elderly people formerly attributed to senility or other indefinite causes are believed to be now more frequently certified as associated with some form of heart disease, usually myocardial degeneration. The improvement in diagnosis has been particularly

evident in the case of diseases of the coronary arteries. As a result of a change of classification adopted in 1931, all forms of this disease have been included among heart diseases from that year onwards. Although deaths recorded from coronary diseases were not numerically important in 1931, this type of disease has since become prominent in medical science, and in 1937 the number of deaths assigned to this cause was 2,431, an increase of 1,867, or over 300 per cent., since 1931. The death rates and proportions per 10,000 deaths in 1937 were as follows:—

**DEATH RATES^(a) FROM DISEASES OF THE HEART AND PROPORTION OF
10,000 TOTAL DEATHS, 1937.**

State or Territory.	Death Rates (a) from Diseases of the Heart.			Proportion of 10,000 Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	283	199	242	2,686	2,443	2,581
Victoria	239	183	210	2,212	1,967	2,097
Queensland	234	146	192	2,260	1,894	2,112
South Australia	195	159	177	2,030	1,931	1,984
Western Australia	205	142	175	1,974	1,940	1,961
Tasmania	240	206	224	2,297	2,419	2,351
Northern Territory	191	..	129	1,273	..	1,111
Australian Capital Territory	54	22	39	1,250	556	952
 Australia	 249	 180	 215	 2,377	 2,151	 2,278

(a) Number of deaths from diseases of the heart per 100,000 of mean population.

(viii) *Diarrhoea and Enteritis (Children under two years of age)* (52). The number of deaths due to these causes was 331 in 1937 which compares favourably with an average of 374 for the previous five years. During 1937, 5,186 children died before reaching their second birthday, and of these 331, or 6.4 per cent., died from diarrhoea and enteritis. The ages of children dying from these diseases during the first year of life will be found on page 404.

The number of deaths under 2 years of age, the death rates, and proportions of 10,000 deaths due to diarrhoea and enteritis for 1911-15, 1921-25, 1931-35 and 1937 are given in the following table. Reference to the last four lines of the table will reveal the very satisfactory decrease in the number of deaths due to these diseases. In view of changed birth-rates, however, the death-rates per 100,000 of mean population are not true measures of changes in the force of mortality. A better measure would be the estimated number of children in every 1,000 born who died from these diseases before reaching their second birthday. The numbers are estimated to be as follows:—

Period—	1911-15	Males, 24.6	Females, 20.9	Total, 22.8
"	1921-25	" 16.5	" 13.3	" 14.9
"	1931-35	" 3.7	" 2.8	" 3.3

DEATHS, DEATH RATES(a), ETC., DIARRHŒA AND ENTERITIS (UNDER 2 YEARS OF AGE).—AUSTRALIA, 1937.

State.	Number of Deaths from Diarrhœa and Enteritis. (Under 2 years of age.)			Death Rates (a) from Diarrhœa and Enteritis. (Under 2 years of age.)			Proportion of 10,000 Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	77	64	141	6	5	5	54	59	56
Victoria ..	31	27	58	3	3	3	31	31	31
Queensland ..	33	25	58	6	5	6	61	69	64
South Australia..	11	5	16	4	2	3	39	21	30
Western Australia	34	24	58	14	11	13	136	153	143
Tasmania ..	..	..	..	..	..	..	..	..	..
Australia 1937 ..	186	145	331	5	4	5	51	51	51
Annual Average—									
1911–15 ..	1,687	1,354	3,041	68	59	64	569	627	593
1921–25 ..	1,114	859	1,973	38	31	35	362	366	364
1931–35 ..	234	175	409	7	5	6	70	68	69

(a) Number of deaths from these diseases per 100,000 of mean population.

(ix) *Puerperal Septicæmia* (including Post-Abortive Sepsis, but excluding Criminal Abortion) (68a,c). Mortality from puerperal septicæmia and post-abortive sepsis during 1937 was exceptionally light, the 121 deaths resulting being the lowest recorded during the past seven years. Figures prior to 1931 for these particular causes are not available on a strictly comparable basis, as it is probable that some of the deaths now included under criminal abortion were classified with puerperal septicæmia in earlier years. The death rate per 1,000 live births during 1937 was 1.02, while corresponding rates for preceding years were:—1931, 1.51; 1932, 1.40; 1933, 1.44; 1934, 1.46; 1935, 1.32; and 1936, 1.82. The rate in 1937 per 1,000 live births of the 212 deaths from puerperal septicæmia, including criminal abortion, was 1.78. The 212 deaths mentioned were made up as follows:—Post-abortive sepsis 59, criminal abortion 91, puerperal septicæmia 62.

(x) *Other Diseases or Accidents of Pregnancy and Labour* (66, 67, 69, 70). The deaths under this heading numbered 339 in 1933; 374 in 1934; 345 in 1935; 358 in 1936; and 339 in 1937. Included in the 339 deaths in 1937 were the following:—Abortion not returned as septic, 23; ectopic gestation, 37; other accidents of pregnancy, 5; puerperal hæmorrhage, 89; puerperal albuminuria and convulsions, 84; other toxæmias of pregnancy, 28; phlegmasia alba dolens and thrombosis, 8; embolism or sudden death, 22; other accidents of childbirth, 36 (Caesarean section, 8; others 28); other or unspecified conditions of the puerperal state, 7.

(xi) *All Puerperal Causes* (66 to 70). The 551 deaths in 1937 under the two preceding headings, including criminal abortion, correspond to a death rate of 16.3 per 100,000 females or 34.4 per 100,000 women between the ages of 15 and 45 years. The rate is also equivalent to 4.63 deaths per 1,000 live births. The death rate may be expressed in other terms by stating that 1 of every 214 women giving birth to a live child in 1937 died from puerperal causes; the corresponding ratios for married women were 1 of every 230, and for single women 1 in every 84. More detailed information will be found in a series of tables in Bulletin No. 55 of Australian Demography.

The following table shows the death rate per 1,000 live births from puerperal causes in various countries. Care is needed in comparing the Australian rates with the figures for other countries. In the rates for Australian States and the Commonwealth deaths from criminal abortion have been excluded from puerperal sepsis deaths but included with deaths from other puerperal causes and in the total. Definite information is not available as to the practice in other countries but it is very probable that the rates for the countries given hereunder totally exclude deaths from criminal abortion.

CHILDBIRTH.—DEATHS PER 1,000 LIVE BIRTHS, VARIOUS COUNTRIES.

Rates per 1,000 Live Births from—				
Country.	Year.	Puerperal Sepsis.	Other Puerperal Causes.	All Puerperal Causes.
Japan	1936	0.64	1.67	2.31
France	1933	0.88	1.58	2.46
Norway	1935	1.38	1.43	2.81
Italy	1936	1.23	1.76	2.99
Netherlands	1936	0.99	2.04	3.03
Sweden	1932	1.70	1.74	3.44
Spain	1932	2.10	1.42	3.52
England and Wales (b) ..	1936	1.34	2.31	3.65
New Zealand	1936	0.92	2.78	3.70
Denmark	1930	1.18	2.65	3.83
Great Britain and Northern Ireland	1936	1.52	2.58	4.10
Belgium	1935	1.38	2.81	4.19
Hungary	1936	2.53	1.80	4.33
Switzerland	1936	(c)	(c)	4.36
Ireland (Eire)	1936	1.79	2.91	4.70
Queensland	1936	1.60	3.25	4.85
Germany	1935	1.99	2.86	4.85
Czechoslovakia	1936	2.88	2.03	4.91
Canada	1935	1.75	3.19	4.94
Western Australia	1936	1.53	3.54	5.07
Union of South Africa (European)	1936	2.39	2.71	5.10
Scotland	1936	2.19	3.36	5.55
Greece	1932	2.95	2.65	5.60
United States	1936	2.15	2.53	5.68
South Australia	1936	2.47	3.48	5.95
Australia	1936	1.82	4.18	6.00
Northern Ireland	1936	2.24	3.82	6.06
Victoria	1936	1.63	4.64	6.27
New South Wales	1936	1.78	4.54	6.32
Tasmania	1936	3.71	3.93	7.64
Egypt (a)	1936	2.67	7.15	9.85

(a) Localities having Health Bureaux.

(b) Rate per 1,000 live and still-births.

(c) Not available.

A tabulation of puerperal causes for Australia according to age at death for married and single women separately will also be found in Australian Demography Bulletin, No. 55.

The total number of children left by the 490 married mothers who died was 1,237, an average of 2.5 children per mother.

Twenty-eight of the mothers who died had been married less than one year, 70 between one and two years, and 42 between two and three years. The duration of marriage ranged up to 27 years, apart from 5 cases in which the date of marriage was not stated. Tabulations distinguishing the ages at marriage and at death will be found in Australian Demography Bulletin, No. 55, which also includes a table showing in combination the duration of marriage and previous issue.

(xii) *Congenital Malformation, Debility and Premature Birth (73 to 77).* The deaths under this heading in 1937 numbered 3,231 of which 3,117 were of children under one year of age. Of all deaths of children under one year of age 71 per cent. was due to these causes. The number of deaths for 1937 is given in the following table:—

DEATHS FROM CONGENITAL DEBILITY, ETC., AND MALFORMATION, 1937.

State or Territory.	Congenital Malformation.			Premature Birth and Injury at Birth.			Congenital Debility and other Diseases peculiar to Early Infancy.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	145	116	261	477	370	847	158	121	279
Victoria ..	69	66	135	251	188	439	125	73	198
Queensland ..	60	54	114	171	130	301	43	32	75
South Australia...	28	17	45	75	64	139	19	19	38
Western Australia	23	17	40	75	47	122	23	15	38
Tasmania ..	7	4	11	56	37	93	30	22	52
Northern Territory	..	..	..	1	..	1	..	..	..
Australian Capital Territory ..	1	..	1	..	..	..	2	..	2
Australia ..	333	274	607	1,106	836	1,942	400	282	682
Number of deaths under one year	275	218	493	1,106	836	1,942	400	282	682
Number of deaths under one year per 1,000 births	4.52	3.74	4.14	18.16	14.36	16.30	6.57	4.84	5.72

(xiii) *Suicide (79).—(a) General.* The numbers of deaths from suicide showed an increase each year from 1922 until 1930 and then fell by 20 per cent. by 1932. The number of suicides rose slightly during 1933 and 1934 but decreased again during the next three years. The number of deaths in 1932 was 754—598 males and 156 females; in 1933, 790—633 males and 157 females; in 1934, 826—643 males and 183 females; in 1935, 791—612 males and 179 females; in 1936, 789—611 males and 178 females; and in 1937, 721—573 males and 148 females.

(b) *Modes Adopted.* The modes adopted by persons who committed suicide in the years 1931–35, 1936 and 1937 were as follows:—

SUICIDES, MODES ADOPTED.—AUSTRALIA.

Mode of Death.	Males.			Females.			Persons.		
	Average of 5 years, 1931–35.	1936.	1937.	Average of 5 years, 1931–35.	1936.	1937.	Average of 5 years, 1931–35.	1936.	1937.
Poisoning	139	118	112	67	75	54	206	193	166
Poisonous gas	39	43	45	20	35	23	59	78	68
Hanging or Strangulation	83	75	62	17	14	14	100	89	76
Drowning	46	32	48	28	24	16	74	56	66
Firearms	199	226	190	11	9	14	210	235	204
Cutting or piercing instruments	89	85	88	9	8	15	98	93	103
Jumping from a high place	15	15	8	6	5	4	21	20	12
Crushing	13	7	11	2	3	3	15	10	14
Other Modes	12	10	9	3	5	3	15	15	12
Total	635	611	573	163	178	148	798	789	721

(c) *Death Rates.* The death rates from suicide and the proportion per 10,000 of total deaths are given in the following table for 1937, corresponding rates for the periods 1911-15, 1921-25, 1931-35, 1934, 1935 and 1936 being shown at the foot of the table :—

SUICIDE.—DEATHS, DEATH RATES^(a), AND PROPORTION OF TOTAL DEATHS, 1937.

State or Territory.	Number of Deaths.			Death Rates (a) from Suicide.			Proportion of 10,000 Total Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	233	64	297	17	5	11	162	59	118
Victoria ..	131	28	159	14	3	9	132	32	85
Queensland ..	91	31	122	18	7	12	170	85	135
South Australia..	38	18	56	13	6	10	135	74	107
Western Australia	61	5	66	25	2	15	244	32	162
Tasmania ..	18	2	20	15	2	9	145	20	90
Northern Territory	1	..	1	27	..	18	182	..	159
Australian Capital Territory ..	..	..	..	..	..	..	..	..	..
Australia, 1937 ..	573	148	721	17	4	11	158	52	112
„ 1936 ..	611	178	789	18	5	12	171	63	123
„ 1935 ..	612	179	791	18	5	12	171	64	124
„ 1934 ..	643	183	826	19	6	12	186	66	133
Average—1931-35	635	163	798	19	5	12	190	62	134
„ 1921-25	509	112	621	18	4	11	166	48	114
„ 1911-15	509	115	624	21	5	13	172	53	122

(a) Number of deaths from suicide per 100,000 of mean population.

(d) *Ages.* From the following table, which shows the ages of the persons who committed suicide in 1937, it will be seen that both extreme youth and extreme old age are represented :—

AGES OF PERSONS WHO COMMITTED SUICIDE.—AUSTRALIA, 1937.

Ages.	M.	F.	Total.	Ages.	M.	F.	Total.
10 years and under 15	4	2	6	60 years and under 65	45	5	50
15 „ „ 20	20	2	22	65 „ „ 70	38	6	44
20 „ „ 25	36	15	51	70 „ „ 75	27	4	31
25 „ „ 30	42	8	50	75 „ „ 80	17	1	18
30 „ „ 35	40	14	54	80 „ „ 85	11	2	13
35 „ „ 40	50	16	66	85 „ „ 90	2	..	2
40 „ „ 45	62	22	84	90 „ „ 95	..	..	..
45 „ „ 50	69	19	88	95 „ „ 100	..	..	..
50 „ „ 55	51	14	65	Not stated	..	1	1
55 „ „ 60	58	18	76				
				Total Deaths ..	573	148	721

(e) *Occupations of Males.* The next table gives the occupations of the males who committed suicide in 1921, 1931 and 1937:—

OCCUPATIONS OF MALES WHO COMMITTED SUICIDE.—AUSTRALIA.

Occupation Group.	Number of Male Deaths.			Percentage of Total.		
	1921.	1931.	1937.	1921.	1931.	1937.
				%	%	%
Professional	32	29	31	6.27	4.21	5.41
Domestic	20	22	14	3.92	3.19	2.44
Commercial	81	106	66	15.88	15.38	11.52
Transport and Communica- tion	42	52	46	8.24	7.55	8.03
Industrial	180	256	86	35.29	37.16	15.01
Agricultural, Pastoral, Min- ing, etc.	131	182	146	25.69	26.41	25.48
Indefinite	21	39	(a) 177	4.12	5.66	(a) 30.89
Dependent	3	3	7	0.59	0.44	1.22
Total Male Deaths ..	510	689	573	100.00	100.00	100.00

(a) Includes 136 (23.73 per cent.) clerks, labourers, etc., not specified as belonging to any industry, who were formerly included under "Commercial" or "Industrial".

(f) *Death Rates, Various Countries.* The following comparative table for various countries shows that Australia occupies a fairly favourable position as regards the death rate from suicide:—

SUICIDE.—DEATHS PER 100,000 PERSONS LIVING, VARIOUS COUNTRIES.

Country.	Year.	Rate.	Country.	Year.	Rate.
Egypt	1936	2.0	Great Britain and Nor- thern Ireland ..	1936	12.2
Ireland (Eire) ..	1936	3.3	England and Wales ..	1936	12.4
Northern Ireland ..	1936	4.0	Queensland	1936	14.1
Spain	1933	5.0	United States	1936	14.2
Greece	1934	6.0	Sweden	1934	15.3
Norway	1935	6.5	Western Australia ..	1936	15.6
Italy	1936	7.9	Finland	1936	16.2
Netherlands	1936	8.1	Belgium	1935	16.8
Canada	1935	8.3	Denmark	1935	19.4
Union of South Africa (a)	1936	8.3	France	1934	21.4
Tasmania	1936	9.5	Japan	1936	15.1
Scotland	1936	10.0	Poland (b)	1936	22.0
New Zealand	1936	10.0	Switzerland	1936	27.8
Victoria	1936	10.7	Czechoslovakia	1936	27.8
New South Wales ..	1936	10.9	Germany	1934	29.0
Australia	1936	11.6	Hungary	1936	31.0
South Australia ..	1936	11.7			

(a) European population only.

(b) In towns with over 100,000 inhabitants.

(xiv) *Homicide* (80). Deaths from homicide in 1937 numbered 107, or 10 more than the previous year. The average for the five years 1932 to 1936 was 100. See paragraph (xvi).

(xv) *Accidental or Violent Deaths (except Suicide and Homicide).* Deaths from accidents in 1937 numbered 3,723 compared with an average of 3,072 for the previous five years. Of the deaths in 1937, 1,396 occurred in New South Wales; 943 in Victoria; 578 in Queensland; 306 in South Australia; 351 in Western Australia; 133 in Tasmania; 10 in Northern Territory; and 6 in the Australian Capital Territory. Other deaths of a violent nature numbered 215. See paragraph (xvi).

(xvi) *Accidental or Violent Deaths (including Homicide and Suicide).* The following table shows the various kinds of violent deaths, including homicides and suicides, recorded in Australia for the year 1937.

DEATHS FROM EXTERNAL VIOLENCE.—AUSTRALIA, 1937.

Cause of Death.	Males.	Females.	Persons.
Suicide (see paragraph (xiii))	573	148	721
Infanticide (murder of children under 1 year) ..	8	..	8
Homicide by firearms	28	11	39
Homicide by cutting or piercing instruments ..	8	7	15
Homicide by other means	32	13	45
Homicide, Total	76	31	107
Poisoning by venomous animals—			
(a) Snakebite	2	1	3
(b) Other	2	1	3
Poisoning by food	5	5	10
Accidental absorption of irrespirable or poisonous gas	11	10	21
Other acute accidental poisonings (gas excepted) ..	26	11	37
Conflagration	10	4	14
Accidental burns (conflagration excepted) ..	103	86	189
Accidental mechanical suffocation	26	20	46
Accidental drowning	274	50	324
Accidental injury by firearms	75	6	81
Accidental injury by cutting or piercing instruments	4	2	6
Accidental injury by falling, crushing, etc.—			
In mines and quarries	122	1	123
By machinery	48	2	50
Connected with methods of transport—			
Railways	144	24	168
Tramways	43	17	60
Automobiles	1,143	243	1,386
Other land vehicles	164	27	191
Transport by water	35	..	35
Transport by air	22	7	29
Fall not otherwise specified	304	258	562
Other crushings	87	5	92
Cataclysm	2	..	2
Injuries by animals (not poisoning)	23	1	24
Starvation, thirst, fatigue	1	..	1
Excessive cold	3	..	3
Excessive heat	20	12	32
Lightning	6	2	8
Other accidental electric shocks	50	4	54
Other and unstated forms of accidental violence—			
Inattention at birth	5	5	10
Other	114	45	159
Violent deaths of unstated nature (open verdict)—			
Drowning	86	30	116
Firearms	18	..	18
Cutting or piercing instrument	1	..	1
Fall	11	3	14
Crushing	5	3	8
Other	34	20	54
War wounds	4	..	4
Capital punishment	..	..	..
External Violence, excluding Suicide and Homicide	3,033	905	3,938
Total Deaths from External Violence ..	3,682	1,084	4,766

The following table of death rates per million of mean population reveals for External Violence (excluding Suicide and Homicide), which consists mainly of accidents, a decrease to 1921-25, but an increase in the rates for 1926-30 to which the growth of automobile accidents contributed very largely. A decreased death rate was recorded during the period 1931-1935, but the rate has been rising steadily since 1933.

DEATH RATES (a) ETC., EXTERNAL VIOLENCE.—AUSTRALIA.

Period.	Death Rates (a) from Homicide.			Death Rates (a) from External Violence excluding Suicide and Homicide.			Death Rates (a) from all External Violence.			All External Violence Proportion of 10,000 Deaths.
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	Persons.
1911-15 ..	21	16	19	948	268	621	1,170	330	770	718
1921-25 ..	17	13	15	753	211	487	950	260	610	643
1926-30 ..	19	15	17	843	240	549	1,070	300	690	746
1931-35 ..	21	11	16	714	223	472	923	284	609	676
1932 ..	19	9	14	700	220	464	898	277	593	685
1933 ..	18	11	15	678	214	449	883	273	583	654
1934 ..	21	11	16	738	234	490	949	301	630	676
1935 ..	21	11	16	764	243	507	964	308	641	677
1936 ..	19	10	14	802	255	533	999	318	663	703
1937 ..	22	9	16	877	268	575	1,065	321	697	730

(a) Number of deaths per 1,000,000 of mean population.

(xvii) "*Other Diseases.*" The intermediate and the abridged classifications of causes of death used in Tables A to E in the preceding pages differ from that used in the Official Year Books previous to No. 25 in that no residue of "other diseases" is shown at the foot. The items are ranged in classes or groups of classes and each class or group of classes is made complete by the addition of an "other diseases" item for that class or group of classes. These "other diseases" items of the intermediate classification are expanded into their constituent causes in the following table:—

F.—DEATHS FROM "OTHER DISEASES."—AUSTRALIA, 1937.

Causes.	G.C.N. (*)	M.	F.	Total.
17. OTHER INFECTIOUS OR PARASITIC DISEASES.				
Erysipelas	15	20	34	54
Acute Poliomyelitis	16	74	41	115
Encephalitis Lethargica	17	11	10	21
Cerebrospinal Fever	18	10	10	20
Tetanus	22	47	16	63
Leprosy	33	11	3	14
Veneral Diseases, other than Syphilis	35	..	2	2
Mycoses	43	4	4	8
Mumps	44 ^a	8	7	15
Other	44 ^b	28	20	48
Total	..	213	147	360

(*) G.C.N. = General Classification Number.

F.—DEATHS FROM "OTHER DISEASES."—AUSTRALIA, 1937—*continued.*

Causes.	G.C.N. •	M.	F.	Total.
25. OTHER GENERAL DISEASES.				
Diseases of the Pituitary Gland	65	3	5	8
Diseases of the Thymus Gland	67	10	8	18
Diseases of the Adrenals (Addison's Disease)	68	9	24	33
Other General Diseases	69	16	9	25
Total	..	38	46	84
27. LEUCÆMIAS, ETC., AND OTHER DISEASES OF THE BLOOD AND BLOOD-MAKING ORGANS.				
Hæmorrhagic Conditions	70	24	14	38
Leucæmia, Lymphadenoma—				
Leucæmia	72a	114	93	207
Aleucæmia (Lymphadenoma)	72b	58	30	88
Diseases of the Spleen	73	17	15	32
Other Diseases of the Blood and Blood-forming Organs	74	3	5	8
Total	..	216	157	373
29. OTHER CHRONIC POISONINGS.				
Chronic Poisoning by Organic Substances	76	3	..	3
Chronic Poisoning by Mineral Substances—				
Chronic Lead Poisoning	77a	9	5	14
Other	77b	1	..	1
Total	..	13	5	18
36. OTHER DISEASES OF NERVOUS SYSTEM.				
Encephalitis (not epidemic)—				
Cerebral Abscess	78a	22	11	33
Others	78b	27	30	57
Other Diseases of the Spinal Cord	81	82	87	169
Convulsions of Infants under Five years of Age	86	21	19	40
Other Diseases of the Nervous System—				
Chorea	87a	1	3	4
Neuralgia and Neuritis	87b	3	8	11
Paralysis Agitans	87c	83	71	154
Disseminated Sclerosis	87d	39	35	74
Idiocy, Imbecility	87e	17	11	28
Other Diseases	87f	31	27	58
Total	..	326	302	628
46. OTHER DISEASES OF THE CIRCULATORY SYSTEM.				
Other Diseases of the Arteries	99	37	25	62
Diseases of the Veins (Varices, Hæmorrhoids, Phlebitis, etc.)	100	22	17	39
Diseases of the Lymphatic System, Lymphangitis, etc.	101	3	6	9
Abnormalities of Blood Pressure	102	61	65	126
Other Diseases of the Circulatory System	103	5	4	9
Total	..	128	117	245

* G.C.N. = General Classification Number.

F.—DEATHS FROM "OTHER DISEASES."—AUSTRALIA, 1937—*continued*.

Causes.				G.C.N. *	M.	F.	Total.
50. OTHER DISEASES OF THE RESPIRATORY SYSTEM.							
Diseases of the Nasal Fossae and Annexa	..	..	..	104	19	10	29
Diseases of the Larynx	..	..	..	105	12	7	19
Congestion, Hæmorrhagic Infarction of Lung	..	..	..	111	166	191	357
Asthma	..	..	..	112	78	60	138
Pulmonary Emphysema	..	..	..	113	6	1	7
Other Diseases of the Respiratory System, Tuberculosis excepted—							
Chronic Interstitial Pneumonia	..	..	..	114a	162	4	166
Gangrene of the Lung	..	..	..	114b	9	6	15
Other Diseases	..	..	..	114c	29	19	48
Total				..	481	298	779
58. OTHER DISEASES OF THE DIGESTIVE SYSTEM.							
Diseases of the Buccal Cavity, Pharynx, etc.—							
Buccal Cavity and Annexa	..	..	..	115a	10	10	20
Pharynx and Tonsils	..	..	..	115b	58	67	125
Diseases of the Oesophagus	..	..	..	116	10	5	15
Other Diseases of the Stomach (Cancer excepted) ..	..	..	..	118	44	37	81
Other Diseases of the Intestines	..	..	..	123	56	32	88
Diseases of the Pancreas	..	..	..	128	33	24	57
Peritonitis (without specified cause)	..	..	..	129	42	60	102
Total				..	253	235	488
70. PUERPERAL CAUSES.							
Phlegmasia Alba Dolens, Embolism, etc.—							
Phlegmasia Alba Dolens and Thrombosis	..	..	..	148a	..	8	8
Embolism and Sudden Death	..	..	..	148b	..	22	22
Other Accidents of Childbirth—							
Cæsarean Section	..	..	..	149a	..	8	8
Other Surgical Operations and Instrumental Delivery	..	..	..	149b	..	5	5
Others	..	..	..	149c	..	23	23
Other or Not Specified Conditions of the Puerperal State—							
Puerperal Diseases of the Breast	..	..	..	150a	..	2	2
Others	..	..	..	150b	..	5	5
Total				..	..	73	73

* G.C.N. = General Classification Number.

14. Causes of Deaths in Classes.—The figures in the preceding sub-sections relate to specific causes of death, and are of greater value in medical statistics than a mere grouping under general headings. The classification under eighteen general headings adopted by the compilers of the International Nomenclature is, however, shown in the

following table, together with the death rates and proportions of total deaths pertaining to those classes. A further table furnishes the death rates for the quinquennia 1911-15, 1921-25 and 1931-35 :—

DEATHS, DEATH RATES(a), ETC., IN CLASSES.—AUSTRALIA, 1937.

Class.	Total Deaths.			Death Rates.(a)			Proportion of 10,000 Deaths.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
1. Parasitic and Infectious Diseases	2,651	1,829	4,480	77	54	66	732	617	665
2. Cancer and Other Tumours	4,176	3,943	8,119	121	117	119	1,152	1,396	1,259
3. Rheumatism, Diseases of Nutrition, of Endocrine Glands, and Other General Diseases	660	1,190	1,850	19	35	27	182	421	287
4. Diseases of the Blood and Blood-forming Organs	302	248	550	9	7	8	83	88	85
5. Chronic Poisonings and Intoxications	64	18	82	2	1	1	18	6	13
6. Diseases of the Nervous System and of the Organs of Sense	2,023	2,204	4,227	58	65	62	558	780	653
7. Diseases of the Circulatory System	10,666	8,090	18,756	308	240	275	2,943	2,864	2,908
8. Diseases of the Respiratory System	3,442	2,399	5,841	100	71	85	950	849	906
9. Diseases of the Digestive System	2,041	1,497	3,538	59	45	52	563	530	549
10. Diseases of the Genito-Urinary System and Annexa	2,928	2,091	5,019	85	62	73	808	740	778
11. Pregnancy, Labour and Puerperal State	..	551	551	..	16	8	..	195	85
12. Diseases of the Skin and of the Cellular Tissue	108	80	188	3	2	3	30	28	29
13. Diseases of the Bones and Organs of Locomotion	113	56	169	3	2	2	31	20	26
14. Congenital Malformations	333	274	607	10	8	9	92	97	94
15. Early Infancy	1,506	1,118	2,624	44	33	38	415	396	407
16. Old Age	1,392	1,527	2,919	40	45	43	384	511	454
17. External Causes	3,682	1,084	4,766	106	32	70	1,016	384	739
18. Causes of Death not Determined	156	51	207	4	2	3	43	18	34
Total	36,246	28,250	64,496	1,048	837	944	10,000	10,000	10,000

(a) Number of deaths per 100,000 of mean population.

QUINQUENNIAL DEATH RATES IN CLASSES.—AUSTRALIA.

Number of Deaths per 100,000 of Mean Population.

Class.	1911 to 1915.			1921 to 1925.			1931 to 1935.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
1. Parasitic and Infectious Diseases	..	..	..	..	..	..	92	70	81
2. Cancer and Other Tumours	..	..	..	..	..	..	113	108	110
3. Rheumatism, Diseases of Nutrition, of Endocrine Glands, and Other General Diseases	261	236	249	248	222	236	18	33	25
4. Diseases of the Blood and Blood-forming Organs	..	..	..	..	..	..	9	9	9
5. Chronic Poisonings and Intoxications	..	..	..	..	..	..	2	..	1
6. Diseases of the Nervous System and of the Organs of Sense	112	93	103	93	83	88	66	67	67
7. Diseases of the Circulatory System	147	116	132	150	118	134	249	200	225
8. Diseases of the Respiratory System	132	93	113	121	88	105	101	75	88
9. Diseases of the Digestive System	135	123	130	97	81	89	60	46	53
10. Non-venereal Diseases of the Genito-Urinary System	72	46	59	72	49	61	81	59	70
11. Puerperal Condition	..	27	13	..	25	12	..	19	9
12. Diseases of Skin and Cellular Tissue	6	5	6	6	4	5	3	3	3
13. Diseases of Organs of Locomotion	2	1	1	3	2	2	3	1	2
14. Congenital Malformations	12	9	10	12	10	11	11	8	10
15. Early Infancy	87	71	79	73	56	65	44	34	39
16. Old Age	94	80	88	76	68	72	42	42	42
17. External Causes	117	33	77	95	26	61	92	28	61
18. Causes of Death not Determined	16	9	13	15	9	12	7	2	5
Total	1,193	942	1,073	1,061	841	953	993	804	900

15. Ages at Death of Married Males and Females, and Issue.—Bulletin No. 55 of Australian Demography contains a number of tables showing, in combination with the issue, the ages at marriage, ages at death, birthplaces and occupations of married persons who died in Australia in 1937. A summary of those tables is given hereunder. Deaths of married males in 1937 numbered 23,618, and of married females, 20,682. The tabulations which follow deal, however, with only 23,213 males and 20,489 females, the information regarding issue in the remaining 598 cases being incomplete. The total number of children in the families of the 23,213 males was 95,512, and of the 20,489 females, 90,304. The average number of children is shown for various age-groups in the following table:—

AGES AT DEATH OF MARRIED MALES AND FEMALES, AND AVERAGE ISSUE.—
AUSTRALIA.

Age at Death.	Average Issue.							
	Males.				Females.			
	1911.	1921.	1931.	1937.	1911.	1921.	1931.	1937.
Under 20 years ..	0.33	..	0.75	0.67	0.94	0.77	0.66	0.88
20 to 24 " ..	0.77	0.84	0.81	0.83	1.27	1.22	1.13	1.05
25 " 29 " ..	1.25	1.29	1.33	1.31	1.82	1.86	1.81	1.55
30 " 34 " ..	2.05	2.06	1.79	1.64	2.74	2.45	2.34	2.23
35 " 39 " ..	2.80	2.58	2.13	2.08	3.64	3.29	2.89	2.61
40 " 44 " ..	3.47	3.23	2.77	2.53	4.09	3.66	3.29	3.05
45 " 49 " ..	4.09	3.48	3.10	3.03	4.54	3.76	3.55	3.25
50 " 54 " ..	4.75	3.76	3.46	3.18	5.35	4.23	3.60	3.30
55 " 59 " ..	5.44	4.41	3.69	3.47	5.86	4.69	4.01	3.56
60 " 64 " ..	5.95	4.98	4.02	3.76	5.99	5.39	4.21	3.91
65 " 69 " ..	6.23	5.50	4.41	4.00	6.50	5.86	4.82	4.35
70 " 74 " ..	6.41	6.06	5.06	4.46	6.38	6.30	5.41	4.72
75 " 79 " ..	6.75	6.66	5.65	4.95	6.72	6.56	6.02	5.32
80 " 84 " ..	6.68	6.89	6.17	5.60	6.22	6.76	6.26	5.75
85 " 89 " ..	6.67	7.18	6.59	6.05	5.97	6.93	6.57	6.17
90 " 94 " ..	6.03	7.21	6.94	6.36	5.69	6.53	6.73	6.47
95 " 99 " ..	7.30	6.97	6.69	6.80	5.05	6.05	7.10	6.61
100 years and up- wards ..	9.33	9.20	7.00	7.00	5.17	5.11	8.20	5.86
Age not stated ..	4.33	5.36	5.00	10.00	4.60	5.80	5.00	1.00
All Ages ..	5.42	4.97	4.44	4.11	5.35	5.05	4.72	4.41

The figures in the preceding table include the issue both living and dead, the proportion between them, taking the issue of deceased males and females together, being about 1,000 to 240. The totals are shown in the following table:—

ISSUE OF DECEASED MARRIED MALES AND FEMALES.—AUSTRALIA, 1937.

Issue of Married Males.	Males.	Females.	Total.	Issue of Married Females.	Males.	Females.	Total
Living ..	39,865	39,160	79,025	Living ..	35,135	35,602	70,827
Dead ..	9,299	7,188	16,487	Dead ..	11,093	8,384	19,477
Total ..	49,164	46,348	95,512	Total ..	46,228	44,076	90,304

16. Ages at Marriage of Deceased Males and Females, and Issue.—While the table giving the average issue of married males and females naturally shows an increase in the averages with advancing ages at death, the following table, which gives the average

issue of males and females according to the age at marriage of the deceased parents shows a corresponding decrease in the averages as the age at marriage advances:—

AGES AT MARRIAGE OF DECEASED MALES AND FEMALES, AND AVERAGE ISSUE.—AUSTRALIA.

Age at Marriage.	Average Issue.							
	Males.				Females.			
	1911.	1921.	1931.	1937.	1911.	1921.	1931.	1937.
Under 15 years ..	..	..	..	3.50	9.71	7.60	6.35	6.94
15 to 19 " ..	6.97	6.32	6.15	5.76	7.10	6.97	6.79	6.41
20 " 24 " ..	6.34	6.05	5.56	5.14	5.77	5.50	5.23	4.95
25 " 29 " ..	5.70	5.17	4.70	4.35	4.27	4.09	3.79	3.56
30 " 34 " ..	4.92	4.45	3.96	3.59	3.04	2.66	2.42	2.38
35 " 39 " ..	4.05	3.90	3.14	2.90	1.68	1.61	1.40	1.29
40 " 44 " ..	3.43	2.67	2.36	2.09	0.72	0.62	3.88	0.33
45 " 49 " ..	2.59	2.20	1.96	1.71	0.26	0.03	0.12	0.08
50 " 54 " ..	2.45	1.70	1.60	1.32	..	..	..	..
55 " 59 " ..	1.66	1.30	0.95	1.02	..	..	..	..
60 " 64 " ..	2.00	0.33	0.63	0.90	..	..	..	..
65 years and upwards ..	1.00	0.25	0.18	0.65	..	..	..	..
Age unspecified ..	5.40	4.93	3.64	3.32	5.23	5.41	3.96	3.52
All Ages ..	5.42	4.97	4.44	4.11	5.35	5.05	4.72	4.41

17. Birthplaces of Deceased Married Males and Females, and Issue.—The following table shows the birthplaces of married males and females who died in 1911 and 1937, together with the average issue. It will be noted that the differences in the average issue of deceased natives of Australia and of the British Isles, which were so marked in 1911, are tending to disappear probably as the result of the approaching similarity of the age constitutions of the two groups.

BIRTHPLACES OF DECEASED MARRIED MALES AND FEMALES, AND AVERAGE ISSUE.—AUSTRALIA.

Birthplace.	Married Males.				Married Females.			
	1911.		1937.		1911.		1937.	
	Deaths.	Average Issue.	Deaths.	Average Issue.	Deaths.	Average Issue.	Deaths.	Average Issue.
Australasia—								
Australia ..	4,074	4.71	15,637	4.11	4,566	4.57	14,741	4.33
New Zealand ..	64	3.89	259	2.82	56	3.84	187	3.19
Europe—								
England and Wales ..	4,079	5.87	4,177	4.03	3,152	5.86	3,151	4.48
Scotland ..	1,133	5.89	1,033	4.08	1,002	6.09	782	4.56
Ireland ..	1,766	6.12	906	4.87	2,118	5.83	980	5.01
Other British Possessions ..	23	6.52	35	4.20	24	5.75	27	5.41
Western ..	199	4.33	232	4.29	55	5.07	54	4.17
Central ..	484	5.81	369	5.32	270	6.56	233	6.07
Southern ..	58	5.09	140	3.63	12	4.92	64	4.47
Eastern ..	35	4.37	49	3.78	6	4.50	27	3.56
Asia—								
British Possessions ..	32	3.87	64	3.23	17	6.41	47	4.04
Foreign Countries ..	74	2.46	96	3.69	5	2.60	25	5.52
Africa—								
British Possessions ..	16	3.56	42	2.48	15	4.80	22	3.27
Foreign Countries ..	..	..	2	1.00	..	..	..	..
America—								
British Possessions ..	42	5.55	30	3.20	17	6.47	20	3.90
United States ..	40	3.78	47	2.91	17	4.94	28	3.36
Other Foreign Countries ..	17	4.53	3	2.33	10	4.50	3	5.00
Polynesia ..	5	4.00	16	2.50	9	3.33	11	3.82
At Sea and Indefinite ..	72	4.28	76	4.58	72	4.85	87	5.51
Total ..	12,213	5.42	23,213	4.11	11,423	5.35	20,489	4.41

18. **Occupations of Deceased Married Males, and Issue.**—The following tabulation shows the average issue in combination with the occupation of deceased males:—

**OCCUPATIONS OF DECEASED MARRIED MALES AND AVERAGE ISSUE.—
AUSTRALIA.**

Occupation Group.	Deaths of Married Males.			Average Issue.		
	1921.	1931.	1937.	1921	1931.	1937.
Professional	926	1,194	1,737	4.04	3.78	3.35
Domestic	552	621	692	3.55	3.64	3.42
Commercial	1,977	2,962	2,590	4.18	3.55	3.36
Transport and Communica- tion	1,254	1,742	2,188	4.63	4.15	3.84
Industrial	5,086	6,883	4,896	4.95	4.49	3.96
Agricultural, Pastoral, Min- ing, etc.	3,983	4,495	5,311	5.83	5.31	4.99
Indefinite	759	936	(a) 5,781	5.49	4.68	4.20
Dependent	15	39	18	4.00	3.85	3.72
Total	14,552	18,872	23,213	4.97	4.44	4.11

(a) Includes 4,316 clerks, labourers, etc. (average issue 4.09), not specified as belonging to any industry, who were formerly included under "Commercial" or "Industrial".

§ 5. Australian Life Tables.

The Official Year Book, No. 20, pp. 962 and 969 to 973, contained a synopsis of the various Australian Life Tables, and comparisons with other countries of the expectation of life at various ages were also given. Considerations of space, however, do not permit of their repetition herein. In connexion with the Census of 1933 Life Tables have been constructed in respect of each sex for Australia as a whole, and these together with monetary tables on single and joint lives based thereon have been published as separate Census publications. A specially contributed article by F. W. Barford, M.A., A.I.A. on the results of the tables for single lives appeared in Official Year Book, No. 29, p. 928.

§ 6. Registration of Births, Deaths and Marriages in the Australian Capital Territory.

Up to the end of 1929 the provisions of the Registration of Births, Deaths and Marriages Act of 1899 and the Marriage Act of 1899 of New South Wales applied to the Australian Capital Territory. Births, deaths and marriages occurring within the Territory were registered by the District Registrars at Queanbeyan and Nowra, and were incorporated in the New South Wales records.

Towards the end of 1929, however, the Registration of Births, Deaths and Marriages Ordinances were enacted, providing for the assumption by the Commonwealth Government of the function of registration within the Territory as from 1st January, 1930. The Commonwealth Statistician is the Principal Registrar, and all registrations are made at Canberra.

Marriages within the Territory are celebrated according to the conditions prescribed by the Marriage Ordinance, 1929. This Ordinance, which closely follows the provisions of the Marriage Act of New South Wales, which it supersedes as regards the Australian Capital Territory, came into operation on 1st January, 1930.

CHAPTER XV.

LOCAL GOVERNMENT.

§ 1. Introduction.

1. **General.**—The following statistics relating to Local Government are somewhat incomplete and otherwise unsatisfactory, but, hitherto, it has not been possible to obtain more complete information. A defect in the figures is due to inconsistency in some cases in the treatment of proceeds of loans and the expenditure thereof. These are sometimes included with the general revenue and expenditure and in other instances they are shown separately.

2. **Roads, Bridges, etc.**—The construction and maintenance of roads, bridges and ferries are generally part of the functions of local authorities, but in New South Wales and South Australia, more especially in the large unincorporated areas, these duties are undertaken directly by the Government. In some States, moreover, a certain proportion of the roads and bridges is constructed and maintained by the Government, which, in addition, advances money for main roads to be expended by municipalities under the supervision of special Boards. Although roads, bridges and ferries constructed and maintained directly by the Government do not properly come under the heading of "Local Government," they have been included in this chapter for the sake of convenience. Owing to the difficulty of obtaining complete particulars of receipts and expenditure by the various local governing bodies on roads under their control, the details of receipts and expenditure given in the following section are those of the Government only, relating either to the supervisory board or commission in the State or to direct activities of a department.

3. **Municipalities, Shires, etc.**—A description of the various systems of municipal government in the different States, and their development from the earliest date, was published in 1919 by the Commonwealth Bureau of Census and Statistics in a separate work entitled "Local Government in Australia."

4. **Water Supply and Sewerage.**—In the cities of Sydney and Melbourne the control of water supply and sewerage is in the hands of special Boards, while in Adelaide and Perth these services are under the direct supervision of Government Departments. In most of the other cities and towns, the municipal councils, or, in some cases, water trusts, are the controlling bodies which either construct the works out of their own resources or take them over after they have been constructed by the Government.

5. **Harbours.**—The majority of the harbours in Australia are managed by Boards, the members of which are either elected by persons interested or appointed by the Government. In a few instances, however, they are directly controlled by the Government. Only those which are controlled by Boards are dealt with in the following pages.

6. **Fire Brigades.**—In all the States, the management of fire brigades is undertaken by Boards. The members of these Boards are usually elected by the councils of municipalities and insurance companies within the districts placed under their jurisdiction, together with one or more appointed by the Government, while occasionally volunteer or country fire brigades are represented.

§ 2. Roads, Bridges, Etc.

1. New South Wales.—(i) *General.* A central road authority was created by legislation early in 1925 for the purpose of providing improved and uniform standards of construction and maintenance of the principal roads, and to administer Governmental subsidies for work on those roads. The funds of this authority (now the Department of Main Roads) are derived principally from taxation of motor vehicles, contributions by the Commonwealth Government from the proceeds of a tax on petrol, direct contributions by Councils and special (not statutory) assistance by the State Government by way of loan moneys or special grants from revenue funds.

There are five classifications of roads which receive assistance from the central authority, and they embrace—

State Highways.—Roads which are principal avenues of communication between the coast and the interior or throughout the State and connecting with such avenues in other States.

Trunk Roads.—Roads which, being secondary avenues of road communication, form with the State Highways and other Trunk Roads, a framework of a general system of intercommunication throughout the State.

Ordinary Main Roads.—Roads which are used principally by through traffic as the means of intercommunication between towns or important centres of population and which with the State Highways and Trunk Roads form part of the general system of road communication throughout the State.

Secondary Roads.—Roads in the Metropolitan area of Sydney which carry a substantial amount of through traffic and relieve neighbouring main roads of traffic which they would otherwise have to bear.

Developmental Roads.—Roads which serve to develop a district or area of land by improving or providing access to a railway station or a shipping wharf or to a road leading to a railway station or a shipping wharf.

The State is divided into two divisions for local government and road administration purposes. The Eastern Division is incorporated in Shires and Municipalities throughout its area while the Western Division, which covers a wide tract of sparsely populated country, is unincorporated except for six municipalities and portions of two other municipalities within the Division.

In the Eastern Division assistance is given to local councils for works on classified roads as described hereunder. For other roads the cost of both construction and maintenance work is generally chargeable to the revenue of local authorities although Government assistance is not infrequently granted for works of construction and reconstruction. This is particularly so in times of acute unemployment and during recent years substantial sums have been distributed for roads by way of grants, primarily for this purpose. There is, in addition, a regular annual endowment of at least £150,000 for shires, a large proportion of which is used for road purposes.

The degree of subsidy from the central road fund in the Eastern Division varies according to the situation of the area concerned, and the classification of the road. There are two areas in this regard (County of Cumberland and Country) and five road classifications, as already described.

The County of Cumberland embraces all municipalities and shires between the Nepean-Hawkesbury River and the Pacific Ocean as far as Bulli on the South, and includes the metropolitan area of Sydney, while the Country covers the remainder of the Eastern Division. In addition to the whole of the motor taxation collected in the Country, half of that collected in the County of Cumberland is required to be spent in the Country, and the contribution by the Commonwealth Government from petrol taxation is distributed between the County of Cumberland and the Country in the same proportion as the motor taxation. The councils in the County of Cumberland are required to pay a levy on the Unimproved Capital Value of lands in their areas (with a rebate of half on lands used for rural primary production) into the funds of the central road authority.

which in turn meets the full cost of all proclaimed main roads in that area, together with half the cost of proclaimed secondary roads. The rate of contribution at present is equivalent to 7/16d. in the £ of Unimproved Capital Value. The present rates of subsidy for works in the Country are as follows :—

State Highways	Full cost.
Trunk Roads	Three-quarters of cost.
Ordinary Main Roads ..	Two-thirds of cost.
Developmental Roads ..	Full cost of approved construction works only.

For new bridges these subsidies are increased so that the central authority meets the whole cost on State Highways and Trunk Roads, and three-quarters of the cost on ordinary main roads.

The full cost of all roads and bridges in the Western Division is met by the central road authority.

All work in the Western Division is carried out directly by the central road authority (7,282 miles) while in the Eastern Division the work is carried out by the Councils except for 1,929 miles, mostly on State Highways.

(ii) *Length of Roads—*

Eastern Division—

Proclaimed Roads (30th June, 1937)—

State Highways	3,844
Trunk Roads	2,424
Ordinary Main Roads	9,197
Secondary Roads	102
Developmental Roads	2,419
Minor Roads (31st December, 1936)	103,207
<i>Western Division</i> (30th June, 1936)	7,282
	128,475

Of these roads 9,937 miles were of concrete, 23,985 miles of tar, bitumen, macadam or gravel, while 24,039 miles were formed only, 30,597 miles were cleared only and 39,017 miles were in their natural state.

(iii) *Revenue and Expenditure.*—The revenue and expenditure of the central road authority for the year ended 30th June, 1937, were as follows :—

<i>Revenue.</i>			<i>Expenditure.</i>		
	£			£	
Motor Taxation	1,882,071		Maintenance	1,569,719	
Petrol Taxation	811,476		Construction	1,348,539	
Councils direct contributions ..	244,116		Interest and other loan charges	381,041	
Loans from State Government	455,860		Other	87,391	
Other	72,614				
Total	3,466,137		Total	3,386,690	

The total expenditure, as nearly as can be ascertained, on all roads in the State by all authorities during 1935–36 was £6,353,010.

(iv) *Sydney Harbour Bridge.* The Government expenditure in connexion with the Sydney Harbour Bridge, which amounted to £9,883,055 to the 30th June, 1937, is not included in the above figures. Of this amount £8,206,942 was provided by General Loan Account, £1,665,444 from proceeds of municipal and shire rates, £10,664 from the Unemployed Relief Fund and £5 from the Public Works Fund. Interest and exchange accounted for £1,494,988 and resumpions for £1,156,308. A reduction in the total cost of the bridge will be effected by the sale of surplus resumed lands estimated at from £200,000 to £300,000.

2. *Victoria.*—(i) *General.* With the object of improving the main roads of the State the Country Roads Board was established by legislation passed in 1912. The principal duties of the board are to determine the main roads, to inquire into the State's resources in road materials and the most effective methods of road construction and maintenance, and to recommend deviations to existing roads or the construction of new roads in order to facilitate communication or to improve the conditions of traffic.

(ii) *Length of Roads and Streets.* At the end of 1936 there were 106,733 miles of roads and streets in Victoria, comprising 143 miles wood or stone; 116 Portland cement concrete; 165 asphaltic concrete and sheet asphalt; 6,510 tar or bitumen surface; 22,861 waterbound macadam, gravel, sand and hard loam pavements; 24,638 formed only; and 52,300 surveyed only but used for general traffic. Of the total length, only 2,306 miles or 2 per cent. were State highways.

(iii) *Receipts and Expenditure.* Funds created under the Act are the Country Roads Board Fund, the Loan Account and the Developmental Roads Loan Account. Particulars of the operations of these Funds are given hereunder.

(a) *Country Roads Board Fund.* All fees (other than fees for licences to drive motor cars) and fines under the Motor Car Act, and all registration fees and fines for traction engines, less cost of collection of such fees and fines, are credited to this fund. The total receipts for the year 1936-37 were £2,063,545 made up as follows:—Motor registration fees, £1,480,272; contributions by municipalities for permanent works (now subject to relief), £144,973, and for maintenance works, £133,400; sale of stores and material and hire of plant, £211,717; and other sources, £93,183. The expenditure for the year was £2,075,698, comprising maintenance and reconditioning of main roads and State highways, £1,044,621; plant, stores, administration, etc., £396,869; and interest, sinking funds, etc., £634,208. The expenditure shown for interest, sinking funds, etc., comprises the following items:—Interest and sinking fund payments on account of loan moneys, £318,788; repayments by municipalities for interest and sinking fund, £117,912; and relief to municipalities from liability in respect of interest and sinking fund, £197,508.

(b) *Country Roads Board Loan Account.* Loans to the amount of £5,072,000 have been authorized from time to time for permanent works on main roads and State highways under the Country Roads Acts. During the year ended 30th June, 1937, the amounts paid into this Account were £69,239 from the State Loans Repayment Fund, while expenditure for the year on permanent works was £69,013, and the total to the end of the year, £4,928,164.

(c) *Developmental Roads Loan Account.* For the purpose of constructing and maintaining subsidiary or developmental roads, the Government has been authorized to borrow sums aggregating £6,475,000. The amount expended during the year ended 30th June, 1937, was £7,441 and the total expenditure to that date was £6,425,757. Receipts for the year comprised £7,382 from the State Loans Repayment Fund.

(d) *Total Expenditure.* In addition to expenditure from the abovementioned Funds, the following amounts were expended under special appropriations on road construction and maintenance:—Unemployment relief, £215,377; contributions by the Commonwealth Government under the provisions of the Federal Aid Roads Act, £587,536, and special Commonwealth grant towards flood repairs, £3,629.

The total expenditure by the Board on road construction and maintenance during the year ended 30th June, 1937, amounting to £1,920,318, may be summarized as follows:—State Highways, £401,337; main roads, £681,009; developmental roads, £294,169; unemployment relief (on main and developmental roads, etc.), £215,377; tourists' roads, £35,635; and Murray River bridges and punts, £1,701.

3. **Queensland.**—Under the Main Roads Act 1920 a Main Roads Board was constituted, consisting of three members appointed by the Governor in Council. In 1925 the Board was abolished and its powers conferred upon a single Commissioner.

The duties of the Commissioner are to carry out surveys and investigations necessary to determine State highways, main, developmental, secondary, mining access, tourist roads, or tourist tracks, and, under certain circumstances, to undertake their construction and maintenance.

With the exception of State highways, mining access roads or tourist tracks, no road can be proclaimed until the Commission has considered any objections thereto lodged by interested local authorities.

Local authorities are not liable for the return of any expenditure for construction on State highways, mining access roads (serving only mining interests) or tourist tracks, but are, however, responsible for up to 50 per cent. of maintenance. The liability in respect of main roads is 20 per cent. of construction costs; developmental roads 20 per cent. of interest on construction costs; secondary roads 50 per cent. of construction costs; and tourist roads as agreed prior to commencement of work. The liability in respect of maintenance of State highways, main, developmental and secondary roads is 50 per cent. In the case of mining access roads and tourist tracks no repayment is required. The Commissioner has power to reduce the amount of contribution payable by any local authority in respect of permanent works and maintenance where the rate required to produce the annual repayment exceeds 1d. in the pound on the property valuation of the whole area. He has also power to grant relief in exceptional circumstances.

At the 31st December, 1936, there were under various local authorities 121,885 miles of roads in Queensland, of which 3,801 were natural or artificial sand-clay loam, 4,613 waterbound pavement, 750 waterbound pavement with bitumen surface, 728 bituminous penetration macadam, 42 concrete, 23,987 formed only and 87,874 unconstructed but used for general traffic. These totals include the roads under the control of the Main Roads Commission, which at the 30th June, 1937, totalled 12,093 miles comprising 9,148 miles of main roads, 3,142 of State highways and 703 of developmental, tourist, etc., roads.

During the year ended 30th June, 1937, the receipts of the Commission amounted to £1,720,343, including £330,000 from the Treasury Loan Fund, £651,733 from motor fees, £552,360 from the Commonwealth for works under the Federal Aid Roads Scheme and £14,856 from the State Unemployment Relief Scheme. Disbursements amounted to £1,723,865, including £820,315 on permanent works, and £204,602 on maintenance.

4. **South Australia.**—The Highways Act 1926–1936 created a Commissioner of Highways and provided for a Main Roads Fund. The Commissioner is virtually empowered to determine upon which main roads he will spend the moneys available, in doing which he has to take into account (a) the moneys voted, or likely to be voted, by Parliament for main roads; (b) whether the road is or will be the main trunk route (i) connecting any large producing area, or any area capable of becoming in the near future a large producing area, with its market or nearest port or railway station; (ii) connecting two or more large producing areas, or areas capable of becoming in the near future large producing areas, or between two or more large centres of population; (iii) between the capital and any large producing area or any large centre of population; (iv) between the capitals of this State and any other State; and (c) whether the area through which the road passes is, or in the near future will be, sufficiently served by a railway or railways.

The Main Roads Fund is to be credited with (a) licence fees and registration fees under the Road Traffic Act 1934–1936; (b) fines, penalties and forfeitures in respect of convictions for offences against the same Act (exclusive of any sum received for costs); (c) fees for hawkers' licences; (d) contributions from Councils; (e) all sums appropriated by Parliament for main roads; (f) all loans raised and appropriated for main roads. In accordance with legislation passed in the years 1930 to 1937 a considerable portion of

these receipts is temporarily payable into general revenue. All moneys received by the State from the Commonwealth under the Federal Aid Roads Scheme are also expended by the Commissioner of Highways under the general provisions of the Highways Act.

The total length of roads in use for general traffic within local governing areas at the 30th June, 1936, was 52,807 miles, of which 14 miles were paved with wood or stone; 215 were bituminous concrete; 769 bitumen penetration; 14,372 tarpaved, metalled or gravelled; 7,042 formed only; and 30,395 unformed.

The expenditure from the Main Roads Fund for the year ended 30th June, 1937, was £537,961, including £128,653 for interest on loans; the amount received from the Commonwealth Government for expenditure on Federal Aid Roads was £339,854; the amount allocated for roads in newly settled areas, etc., was £55,000; and grants in aid of rates collected paid to Councils amounted to £26,861. In sparsely-settled districts outside the incorporated areas, the roads and bridges are constructed and maintained chiefly by the Engineering and Water Supply Department under arrangement with the Commissioner of Highways. The amount so expended during the same period was £13,153. At the close of the period under review the Commissioner was maintaining departmentally about 1,138 miles of improved main roads.

5. *Western Australia.*—In Western Australia the construction, maintenance and management of main and developmental roads throughout the State are under the control of the Commissioner of Main Roads, appointed under the Main Roads Act 1930. Minor roads are controlled by Municipalities and District Road Boards.

6. *Tasmania.*—(i) *Length and Description of Roads.* At the 30th June, 1937, there were 13,104 miles of roads in Tasmania, comprising 500 of bitumen or oil-sprayed; 5,234 metalled; 3,189 gravelled; and 4,181 formed only. Of the total length, 1,311 miles were State highways.

(ii) *Construction.* In Tasmania the cost of construction of roads and bridges is borne almost entirely by the State Government. Up to the 30th June, 1937, the loan expenditure on these works was £5,375,540 (roads, £4,392,420; tracks, £233,664; bridges, £749,456). In addition, half the proceeds of the sale of land has been applied to form a Crown Lands Fund for the construction of roads to new holdings. Under this provision £694,933 has been expended. This fund has in recent years more than met the demands on it, and expenditure therefrom since 1918 has been limited to £10,000 annually, the balance being used for redemption of debt.

Loan money expended by the Public Works Department during the year 1936–37 on the construction of roads and bridges amounted to £96,787, and expenditure from the Crown Lands Fund to £1,925. In addition, the sum of £134,651 provided by the Commonwealth Government was expended on roads. New-road mileage completed during the year was 117 miles metalled and gravelled under State votes, and 20 miles of new construction and 63 miles of reconstruction under Federal Aid Roads Scheme.

(iii) *Maintenance.* The maintenance of roads, other than State highways is undertaken by the municipalities out of their own revenues. All bridges costing over £50 are maintained by the State Government. The maintenance of State highways is provided for by the State Highways Act 1929, which created the State Highways Trust Fund to which is paid from Consolidated Revenue a sum equal to the amount of all motor taxes collected in the immediately preceding financial year and paid into the Treasury, less 2 per cent. The expenditure on State highways for 1936–37 was £78,848.

7. *Summary of Net Loan Expenditure on Roads and Bridges.*—Figures showing the total expenditure on roads and bridges in the States are not available. The following table shows the annual net loan expenditure on roads and bridges by the central Governments in each State during the years 1932–33 to 1936–37, together with the aggregate amounts of expenditure up to the 30th June, 1937. The net loan expenditure by the Government is not available for Tasmania and the figures given in the following table represent the actual amounts expended by the Department of Public Works, including sums for unemployment relief.

ROADS AND BRIDGES.—NET LOAN EXPENDITURE.

Year ended 30th June—	N.S.W.	Victoria.(a)	Q'land.(b)	S. Aust.(c)	W. Aust.	Tasmania.	All States.
	£	£	£	£	£	£	£
1933 ..	233,504	94,088	271,323	..	83,004	51,336	733,255
1934 ..	Cr. 37,927	114,419	469,226	..	199,279	63,240	808,237
1935 ..	262,436	95,360	891,929	..	110,508	65,960	1,426,193
1936 ..	92,682	77,040	573,655	..	132,783	82,773	958,933
1937 ..	669,704	41,807	459,114	196,000	123,659	96,787	1,587,071
Total to 30/6/37	17,426,132	12,313,878	6,571,553	3,415,746	2,635,320	5,375,540	47,738,169

(a) Represents expenditure from loan and on account of loan. (b) Amounts include relative expenditure by the Public Estate Improvement Branch not shown in previous years. (c) Adjusted figures, excluding credits due to purchase of securities.

The loan expenditure given above does not represent the total expenditure on roads and bridges. It relates for the most part to capital expenditure on new works, but it must be supplemented by similar expenditure from loan funds of local bodies, Federal grants and unemployment relief moneys, and further account must be taken of expenditure on maintenance which is mainly defrayed from the current revenues.

§ 3. Municipalities, Shires, Etc.

1. New South Wales.—(i) *General.* Practically the whole of the State, with the exception of the greater portion of the Western Division, has been divided into municipalities and shires, the total area incorporated at the end of 1936 being 184,011 square miles, of which 2,142 square miles are included in the former and 181,869 in the latter. The areas incorporated comprise the whole of the Eastern and Central Divisions of the State (with the exception of Lord Howe Island, the islands in Port Jackson and the quarantine station at Port Jackson) and a small portion of the Western Division consisting of the whole of six and part of two municipalities.

The operations of the City of Sydney are governed by the Sydney Corporation Act, 1932–1934, and those of other local government areas known as municipalities and shires by the Local Government Act, 1919 and amendments.

In the tables which follow the revenue and expenditure transactions of the City of Sydney are shown separately from those of municipalities and shires because of differences in the form of accounts. An exception is made, however, in the summary appearing on page 458, total figures for New South Wales including both the City of Sydney and municipalities and shires.

LOCAL GOVERNMENT AREAS, NEW SOUTH WALES.—SUMMARY, 1936.

Local Area.	Number.	Area.	Population, 31st December, 1936.	Unimproved Capital Value. (a)	Improved Capital Value. (a)	Length of Roads.
		Acres.		£	£	Miles.
Metropolitan— City of Sydney ..	1	3,220	87,770	45,798,993	139,817,600	137
Municipalities ..	48	152,073	1,179,580	90,367,077	275,031,234	3,374
Total ..	49	155,293	1,267,350	136,166,070	414,848,834	3,511
Country— Municipalities ..	124	1,215,488	576,610	31,036,591	106,805,986	6,737
Shires ..	139	116,396,340	813,470	139,212,843	(b)	110,945
Total ..	263	117,611,828	1,390,080	170,249,434	(b)	117,682
Grand Total ..	312	117,767,121	2,657,430	306,415,504	(b)	121,193

(a) Excludes Federal Government and other non-rateable properties.

(b) Not available.

(ii) *Revenue and Expenditure.*—(a) *City of Sydney.* Revenue from rates and from fines, fees, rents, etc., in connexion with ordinary local services rendered by the City Council are credited to the City Fund, of which the Public Markets Account and Resumptions Account are subsidiary accounts. Expenditures on road maintenance, parks and recreation, health, street lighting and other services are made from the City Fund. In addition, the Council finances include an Insurance Fund, and, though not usually treated as forming part of the City's accounts, rates levied to meet contributions payable to authorities controlling the main roads and Sydney Harbour Bridge. Prior to 1936 the Council had an Electricity Trading Fund, but as from 1st January, 1936, the electricity undertaking was placed under the control of a new body, the Sydney County Council.

A statement of the revenue and expenditure of the City of Sydney for the year ended 31st December, 1936, is shown below :—

CITY OF SYDNEY.—REVENUE AND EXPENDITURE, 1936.

Particulars.	City Fund.			Total.
	Public Markets.	Resump-tions.	Other.	
	£	£	£	£
Revenue—				
Rates (contributions in lieu and rent of mains) .. .. .	.. .. .	..	874,415	874,415
Rents and hire	79,215	92,124	10,971	182,310
Licences, fines, fees, etc.	59,225	..	52,832	112,057
Sundries	117	..	47,504	47,621
Total City Funds	138,557	92,124	985,722	1,216,403
Main roads and harbour bridge rates	..	..	..	83,914
Total Revenue	..	..	..	1,300,317
Expenditure—				
Administration	..	..	540,975	661,238
Works, Services, etc.	71,050	49,213		
Interest	56,981	311,548		
Loan Redemption, Sinking Funds, etc.	24,568	71,672	39,459	135,699
Total City Funds	152,599	432,433	691,793	1,276,825
Main roads and harbour bridge (rate) contributions	..	..	..	83,914
Total Expenditure	..	..	..	1,360,739

Loan expenditure by the City of Sydney during 1936 amounted to £106,183.

(b) *Municipalities and Shires.* In the accounts of municipalities and shires operating under the Local Government Act, 1919, expenditure chargeable to revenue includes, in addition to normal recurring items of expenditure, cost incurred in respect of construction works, such as roads and bridges, and other objects having long life not being realizable assets or for use in performing works or rendering services over a period of time even though financed from loan funds. It excludes payments made in the redemption of indebtedness.

A summary of the revenue accounts of municipalities and shires for 1936, compiled on the foregoing basis, is shown in the following table :—

MUNICIPALITIES AND SHIRES (EXCLUDING CITY OF SYDNEY), NEW SOUTH WALES.—REVENUE AND EXPENDITURE, 1936.

Particulars.	Municipalities.		Shires.	Total.
	Metropolitan.	Country.		
REVENUE.				
	£	£	£	£
Ordinary Services—				
Rates and extra charges	2,040,221	792,052	1,313,732	4,146,005
Government endowment	..	..	149,875	149,875
Government grants	1,134,530	1,119,486	2,248,413	4,502,429
Works	151,957	47,032	75,894	274,883
Health	162,072	217,970	143,530	523,572
Services	37,638	46,159	13,159	96,956
Property	29,327	61,380	40,249	130,956
Other	41,113	29,813	21,708	92,634
Total Ordinary Services	3,596,858	2,313,802	4,006,560	9,917,310
Trading Undertakings	98,145	1,294,180	299,972	1,692,297
Water and Sewerage Funds	..	496,013	44,492	540,505
Total Revenue	3,695,003	4,104,085	4,351,024	12,150,112
EXPENDITURE CHARGEABLE TO REVENUE.				
Ordinary Services—				
Administration	176,648	137,401	236,948	550,997
Works	1,898,377	1,283,774	3,251,199	6,433,350
Health	507,335	438,357	204,703	1,210,395
Services	254,279	225,898	125,352	605,529
Property	53,678	51,570	23,289	128,537
Interest	228,506	65,015	62,208	355,729
Other	20,514	14,815	29,068	64,337
Main Roads Board and Harbour Bridge Contribution	182,404	7,224	22,972	212,600
Total Ordinary Services	3,381,741	2,224,054	3,955,679	9,561,474
Trading Undertakings	85,392	1,098,889	255,333	1,439,014
Water and Sewerage Funds	..	395,589	34,113	429,702
Total Expenditure	3,467,133	3,718,532	4,245,125	11,430,790

The total amount of Government assistance to municipalities in 1936 amounted to £2,305,446 and to shires £2,399,043, the latter including £140,875 by way of endowment in aid of general revenues. Apart from the sums shown under Government grants and endowment small amounts were credited under other heads, including trading and water and sewerage accounts. A complete statement of revenue from rating, which in the foregoing table is allotted to the various accounts, is presented in a later table.

(iii) *Capital Transactions.* The following table shows the capital expenditure, debt redemptions and loan expenditure of Councils during 1936 :—

MUNICIPALITIES AND SHIRES (EXCLUDING CITY OF SYDNEY), NEW SOUTH WALES.—CAPITAL TRANSACTIONS.

Particulars.	Municipalities.		Shires.	Total.
	Metropolitan.	Country.		
	£	£	£	£
Assets purchased	225,990	711,828	260,009	1,197,827
Loan repayments	405,569	192,008	108,943	706,520
Payments off deferred payments debts	62,361	125,438	76,384	264,183
Expenditure from Loan Funds ..	244,100	171,764	159,384	575,248
Balances owing on deferred payment debts incurred during year ..	65,152	236,894	70,796	372,842

(iv) *Rates Levied—City of Sydney, Municipalities and Shires.* Rates levied by local authorities may be of four kinds, viz., general, special, local and loan. In the following table are shown particulars of all rates levied during 1936 :—

CITY OF SYDNEY, MUNICIPALITIES AND SHIRES, NEW SOUTH WALES.—RATES LEVIED, 1936.

Area.	Rates levied on behalf of—						Extra Charges on Overdue Rates.
	Ordinary Services.(a)	Electricity Works.	Gas Works.	Water Supply.	Sewerage.	Total.	
	£	£	£	£	£	£	£
Metropolitan—							
Sydney	955,899	..	..	..	..	955,899	2,430
Municipalities	1,992,703	1,777	..	..	..	1,994,540	47,458
Total	2,948,662	1,777	..	..	..	2,950,439	49,888
Country—							
Municipalities—	759,067	21,067	2,526	237,227	109,786	1,121,673	32,985
Shires	1,277,441	24,888	..	28,091	..	1,330,420	36,291
Total	2,036,508	45,955	2,526	260,318	109,786	2,455,093	69,276
Grand Total	4,985,170	47,732	2,526	260,318	109,786	5,405,532	119,164

(a) Including Main Roads and Harbour Bridge Rates.

(v) *Assets and Liabilities—City of Sydney, Municipalities and Shires.* A statement of the assets and liabilities as at 31st December, 1936, of local authorities in New South Wales is shown below:—

CITY OF SYDNEY, MUNICIPALITIES AND SHIRES, NEW SOUTH WALES.—ASSETS AND LIABILITIES, 1936.

Particulars.	City of Sydney.	Municipalities.		Shires.	Total.
		Metropolitan.	Country.		
ASSETS.					
	£	£	£	£	£
Bank balances and cash..	890,675	319,436	1,008,408	604,858	6,697,003
Investments, Sinking Fund and other ..	3,873,626				
Outstanding rates and extra charges ..	229,739	929,523	707,547	807,446	3,761,495
Sundry debtors ..		273,276	555,692	258,272	
Stores and materials ..		52,638	158,388	81,913	23,620,851
Land, buildings, plant and furniture ..	8,578,285	2,454,592	9,961,739	2,333,296	
Total Assets ..	13,572,325	4,029,465	12,391,774	4,085,785	34,079,349
LIABILITIES.					
Loans—Government ..	..	377,362	4,805,529	657,442	5,840,333
Other ..	10,920,655	4,644,943	2,201,944	1,356,011	19,123,553
Sundry creditors ..	951,758	278,705	244,028	215,293	1,687,874
Bank overdraft ..	545,067	598,682	390,913	398,778	1,933,440
Unexpended portion of Government grants and deposits on contracts ..	..	70,132	169,098	173,478	412,708
Total Liabilities ..	12,417,480	5,967,914	7,811,512	2,801,002	28,997,908

In the City of Sydney it is not possible to dissect capital expenditure on resumptions to show the cost of resumptions used in roadworks and those portions retained as assets in the form of land and buildings; in all other instances capital expenditure on road and bridge construction has not been included as an asset.

(vi) *Loan Expenditure—Municipalities Shires and County Councils.* The total loan expenditure by local government bodies during the year 1936 was £1,130,557, comprising municipalities £522,047 (City of Sydney, £106,183; metropolitan, £244,100; and country, £171,764); shires, £159,384; and county councils, £449,126.

2. *Victoria.*—(i) *General.* Local Government is established throughout the State, the various divisions being termed cities, towns, boroughs, or shires. Melbourne and Geelong were incorporated under special statutes prior to the establishment of a general system of local government, but are now subject to several provisions of the local Government Act.

The financial years of the cities of Melbourne and Geelong end on the 31st December and the 31st August respectively, and those of all other municipalities on the 30th September.

(ii) *Municipalities. (a) Summary.* The following table shows the number of cities, towns, boroughs and shires, with estimated population, number of ratepayers and dwellings, and value of rateable property for the year 1936 :—

MUNICIPALITIES, VICTORIA.—SUMMARY.

Year ended 30th September—	Number of Municipalities.	Population.	Number of District Ratepayers.	Occupied Dwellings.	Estimated Value of Rateable Property.	
					Capital Improved Value.	Net Annual Value.

METROPOLITAN.

	No.	No.	No.	No.	£	£
1936	29	1,020,000	327,442	252,218	327,821,850	17,647,459

OUTSIDE METROPOLITAN AREA.

1936	166	830,100	287,937	209,695	285,701,030	14,397,990

(b) *Revenue and Expenditure.* The table hereunder shows the revenue from various sources and the expenditure under various heads, of municipalities during the year 1936 :—

MUNICIPALITIES, VICTORIA.—REVENUE AND EXPENDITURE, 1936.

Items.	Revenue.	Items.	Expenditure from Revenue.
	£		£
Taxation—		General Administration ..	563,323
Rates—		Sanitary work, street cleaning, etc.	223,114
General	3,432,905	Health	164,711
Other	50,144	Lighting	167,044
Licences	18,954	Contributions to Fire Brigades..	62,428
Sanitary Charges ..	152,314	Public Works—	
Dog fees	36,624	Roads, Streets and Bridges ..	1,880,934
Government grants ..	187,918	Other	720,415
Licensing fund payments ..	60,082	Payments to Country Roads Board	203,710
Contributions for streets, etc.	134,836	Electric light and gas works ..	1,523,174
Market and weighbridge dues	181,814	Redemption of loans	317,831
Rents	220,420	Payments to sinking funds ..	10,200
Electric light and gas works ..	1,616,248	Interest on loans	443,931
Interest	12,681	Interest on bank overdrafts ..	35,577
Other sources	650,256	Charities	37,633
		Other expenditure	318,408
Total Revenue	6,761,205	Total from Revenue	6,776,638

MUNICIPALITIES, VICTORIA.—LOANS—RECEIPTS AND EXPENDITURE, 1936.

Items.	Receipts.	Items.	Expenditure.
	£		£
Proceeds of loans—		Roads and bridges ..	200,441
From Government ..	795	Water and irrigation ..	960
From other sources ..	570,220	Sewerage and drainage ..	7,239
Other receipts ..	184,639	Electric light and gas ..	254,362
		Public buildings ..	401,298
		Other purposes ..	18,273
Total Receipts ..	755,654	Total Expenditure ..	882,573

(c) *Assets and Liabilities.* The assets of municipalities may be classified under three heads—(a) the municipal fund, (b) the loan fund and (c) property; the liabilities under two heads—(a) the municipal fund, and (b) the loan fund. The following table shows the amount of municipal assets and liabilities at the end of the year 1936 :—

MUNICIPALITIES, VICTORIA.—ASSETS AND LIABILITIES, 1936.

Items.	Assets.	Items.	Liabilities.
	£		£
MUNICIPAL FUND—		MUNICIPAL FUND—	
Uncollected rates ..	979,840	Due on current contracts	150,018
Streets formed, etc., pay- ments outstanding ..	1,266,976	Overdue interest ..	9,713
Rents and interest out- standing ..	61,591	Bank overdrafts ..	846,400
Cash in hand or in bank ..	780,887	Payments due to Country Roads Board ..	386,943
Other assets ..	451,361	Other liabilities ..	775,814
LOAN FUND—		LOAN FUND—	
Sinking funds—		Loans outstanding—	
Amount at credit ..	780,493	Due to Government—	
Due by other bodies ..	1,125	Country Roads Board	
Unexpended balances ..	387,102	Loans ..	1,794,693
PROPERTY—		Other ..	801,209
Buildings, markets, tram- ways, etc. ..	6,176,050	Due to Public	11,944,237
Waterworks ..	377,860	Due on loan contracts ..	54,165
Gasworks ..	281,670		
Electric light works ..	2,832,850		
Plant and machinery ..	611,580		
Other assets ..	230,490		
Total ..	15,225,875	Total ..	16,763,192

3. *Queensland.*—(i) *General.* The whole of the State (except certain islands along the coast, the Dawson Valley Irrigation area and the Somerset Dam area) is incorporated into cities, towns and shires under the Local Authorities Act 1902 and its amendments.

(ii) *Municipalities.*—(a) *Summary.* The following table gives particulars of the area, population, number of inhabited dwellings, and assets and liabilities of cities and

towns and of shires for the year 1936, except for the City of Brisbane for which financial particulars relate throughout to the year ended 30th June, 1937 :—

MUNICIPALITIES, QUEENSLAND.—SUMMARY.

Year.	No.	Area.	Popula- tion.	Occupied Dwellings.	Rateable Value.	Assets.	Liabilities.	
							Government Loans.	Total.
CITIES AND TOWNS.								
1936(a) ..	23	sq. miles. 780	No. 529,419 (b)	No. 125,607	£ 28,562,474	£ 26,253,705	£ 7,029,501	£ 27,795,124
SHIRES.								
1935(a) ..	121	669,054	462,478 (b)	107,212	43,322,257	2,399,834	2,736,797	3,641,611

(a) Figures relating to assets and liabilities include waterworks, sewerage works, electric light works and railways and tramways controlled by local authorities. (b) The official estimate of the population of Queensland as at 31st December, 1936, was 922,134 persons. The total of the population of cities, towns, and shires, as estimated by Town and Shire Clerks, is slightly in excess of this figure.

(b) *Revenue and Expenditure.* The revenue and expenditure (including loan moneys) of cities and towns, and of shires for the year 1936 are given hereunder :—

MUNICIPALITIES, QUEENSLAND.—REVENUE AND EXPENDITURE.

Year.	Revenue.			Expenditure.			
	Rates.	Government Loans and Subsidies. (a)	Total.	Public Works and Services. (b)	Government Loan Redemption.	Office Expenses and Salaries.	Total.
CITIES AND TOWNS.							
1936 ..	£ 1,358,606	£ 1,289,058	£ 6,498,919	£ 4,275,900	£ 148,878	£ 281,179	£ 6,542,400
SHIRES.							
1936 ..	1,015,721	1,465,724	2,826,390	2,302,556	98,950	158,172	2,892,048

(a) Includes Main Road Receipts.

(b) Includes Expenditure on Main Roads.

The figures in the foregoing tables cover all the activities of the local authorities throughout Queensland such as :—Road repairs, street lighting, etc., waterworks, electric light, and railways and tramways controlled by local bodies.

4. *South Australia.*—(i) *General.* The settled portion of South Australia is incorporated, being mostly under municipal corporations in the larger cities and towns, and district councils in the agricultural areas. With the exception of the Corporation of Adelaide, grants are allocated to these bodies by the Commissioner of Highways for the maintenance and construction of main and other roads.

(ii) *Local Authorities.*—(a) *Summary.* The number of corporations and district councils was reduced by amalgamation by the Local Government Commission in 1936, from 166 to 142, of which 14 corporations and 7 district councils are in the metropolitan area, and 21 corporations and 100 district councils in outside areas. The following table gives the area, population, number of occupied dwellings, capital and assessment values and outstanding loans for corporations and district councils separately for the year ended 30th June, 1936.

LOCAL AUTHORITIES, SOUTH AUSTRALIA.—SUMMARY.

Year ended 30th June.	Area.	Population.	Occupied Dwellings.	Capital Value.	Assessment Value.	Outstanding Loans.
MUNICIPAL CORPORATIONS.						
1936..	Acres. 80,177	No. 309,461	No. 76,985	£ 87,359,677	£ 4,138,530	£ 698,953

DISTRICT COUNCILS.						
1936..	34,426,533	266,282	63,312	89,257,441	4,855,099	(a) 384,342

(a) Includes advances through District Councils to settlers for vermin-proof fencing, etc., amounting to £302,657.

(b) *Revenue and Expenditure.* The next table gives the revenue and expenditure of corporations and district councils for the year 1935-36.

LOCAL AUTHORITIES, SOUTH AUSTRALIA.—REVENUE AND EXPENDITURE.

Year ended 30th June.	Revenue (including Loans).			Expenditure.		
	Rates.	Subsidies.	Total.	Roads.	Other Public Works and Services.	Total.
MUNICIPAL CORPORATIONS.						
1936..	£ 531,768	£ 28,754	£ 781,674	£ 300,490	£ 259,488	£ 777,790
DISTRICT COUNCILS.						
1936..	300,845	225,833	677,103	450,980	92,594	661,052

5. *Western Australia.*—(i) *General.* In this State Local Government is carried on by means of (a) municipalities and (b) district road boards. Certain functions are delegated to health boards, the personnel of which, in most cases, coincides with those of the municipalities and district road boards.

The financial year of municipalities and municipal boards of health terminates on the 31st October, and that of road boards and other local boards of health on the 30th June.

(ii) *Municipalities. (a) Summary.* The following table gives various particulars regarding municipalities for the year ended 31st October, 1936 :—

MUNICIPALITIES, WESTERN AUSTRALIA.—SUMMARY.

Year ended 31st October—	Municipalities.	Area.	Population.	Occupied Dwellings.	Valuation of Rateable Property.		Length of Roads and Streets.
					Capital Value.	Annual Value.	
	No.	Acres.	No.	No.	£	£	Miles.
1936 ..	21	59,511	196,092	45,766	46,447,667	2,424,619	(a) 829

(a) Exclusive of roads surveyed but not formed.

(b) *Revenue and Expenditure.* Revenue and expenditure of municipalities during the year 1936 are given hereunder :—

MUNICIPALITIES, WESTERN AUSTRALIA.—REVENUE AND EXPENDITURE.

Year ended 31st October—	Revenue.				Expenditure.			
	Rates.	Govt. Grants.	Other Sources.	Total.	Works and Improvements.	Interest and other Charges on loans.	Other Expenses.	Total.
	£	£	£	£	£	£	£	£
1936 ..	29,652	1,862	1,042,421	1,340,935	214,888	291,859	773,658	1,280,405

(c) *Assets and Liabilities.* The table below shows the assets and liabilities of municipalities at the 31st October, 1936 :—

MUNICIPALITIES, WESTERN AUSTRALIA.—ASSETS AND LIABILITIES.

31st October.	Assets.				Liabilities.	
	Balance in Hand.	Value of Property.	Accrued Sinking Funds.	Total.	Outstanding Debentures and Bonds.	Total.
	£	£	£	£	£	£
1936 ..	76,462	2,926,937	590,854	3,887,081	2,225,208	2,423,963

(iii) *District Road Boards. (a) Summary.* The method of valuation is not identical in the case of all District Road Boards, as in some the assessment is based on the unimproved capital values and in others on the annual values. The unimproved capital value given in the following table is, therefore, only approximate. At the 30th June, 1936, the population was estimated at 268,863, and the number of occupied dwellings, 66,412.

DISTRICT ROAD BOARDS, WESTERN AUSTRALIA.—SUMMARY.

Year ended 30th June—	Number of Road Districts.	Area.	Unimproved Capital Value (Approximate).	Length of Roads in Existence.	Assets.	Liabilities.	Out- standing Loans.
	No.	sq. miles.	£	miles.	£	£	£
1936 ..	127	975,828	22,058,363a	27,020b	£1,154,437	974,720	851,284

(a) Rated partly on unimproved capital value and partly on annual value.
roads surveyed but not formed.

(b) Exclusive of

(b) *Revenue and Expenditure.* The revenue and expenditure of district road boards are shown in the following table for the year ended 30th June, 1936 :—

DISTRICT ROAD BOARDS, WESTERN AUSTRALIA.—REVENUE AND EXPENDITURE.

Year ended 30th June—	Revenue.				Expenditure.			
	Rates.	Govern- ment Grants.	Other.	Total.	Adminis- tration.	Works.	Other.	Total.
	£	£	£	£	£	£	£	£
1936 ..	253,034	49,963	401,658	704,655	76,605	362,737	244,936	684,278

(iv) *Local Boards of Health.* Excluding twelve boards not under the control of municipalities or road boards there were 120 local boards of health in 1936. The revenue and expenditure as well as the assets and liabilities of these boards are shown in the following table. The financial year of municipal boards ends on the 31st October, and that of other boards on the 30th June.

LOCAL BOARDS OF HEALTH, WESTERN AUSTRALIA.—FINANCES.

Year.	Number.	Revenue.			Expenditure.		Assets.	Liabilities.
		Rates.	Sanitary Charges and Rubbish Fees.	Total.	Sanitary and Rubbish Service.	Total.		
		£	£	£	£	£		
1936 ..	120	61,604	72,459	210,278	93,240	216,777	140,061	81,900a

(a) Including outstanding loans, £65,611.

6. *Tasmania.*—(i) *General.* The whole State is divided into municipal districts, Hobart and Launceston being incorporated under separate Acts.

(ii) *Municipalities.* (a) *Summary.* The following table gives the number of municipalities, valuations, outstanding loans and length of roads for the year 1936–37. The number of occupied private dwellings in Tasmania at the census of 30th June, 1933, was 51,310.

MUNICIPALITIES, TASMANIA.—SUMMARY.

Year ended 30th June—	Number of Municipali- ties.	Valuations.			Outstanding Loans.	Length of Roads.
		Annual Value.	Unimproved Value.	Total Capital Value.		

HOBART AND LAUNCESTON.

	No.	£	£	£	£	Miles.
1937	2	1,238,811	7,198,743	20,249,092	2,533,466	235

COUNTRY MUNICIPALITIES.

1937	47	1,483,625	14,739,215	31,146,292	580,751	12,483
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(b) *Revenue and Expenditure.* The next table gives the revenue and expenditure of all municipalities for the year 1936-37:—

MUNICIPALITIES, TASMANIA.—REVENUE AND EXPENDITURE.

Year ended 30th June—	Revenue.			Expenditure.			
	Rates.	Government Grants.	Total.	Adminis- tration.	Works and Services.	Interest and Sinking Fund.	Total

HOBART AND LAUNCESTON.

	£	£	£	£	£	£	£
1937	280,661	700	631,162 ^a	19,344	395,509	184,530	616,844 ^a

COUNTRY MUNICIPALITIES.

1937	184,754	45,336	333,701 ^a	35,867	238,378	44,835	331,208 ^a
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(a) Excluding loan receipts £165,342 and loan expenditure £126,469.

7. *Basis for Municipal Rating and Limits for Rates.*—These matters were dealt with at some length in Official Year Book, No. 17, pp. 124-125.

§ 4. Summary of Local Government Finance.

1. *General.*—In the preceding parts of this chapter certain particulars have been given regarding local authorities in each individual State. In this section comparative figures are given for each State regarding the financial operations of local governing bodies.

2. Local Government Authorities : Number, Revenue, Expenditure and Valuation.—

The sub-joined table shows the number, revenue and expenditure, including loan money, and valuation of local authorities in each State and in Australia for the year 1936. It should be noted that, excepting in Queensland and Tasmania, the metropolitan water supply and sewerage systems are not under municipal control; the particulars given of revenue and expenditure for the four States other than Queensland and Tasmania do not, therefore, include revenue and expenditure on account of these systems.

LOCAL GOVERNMENT AUTHORITIES (a).—FINANCIAL SUMMARY, 1936.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.(b)	Tasmania.	Total.
No. of local authorities(a)	312	195	144	142	268	49	1,108
RECEIPTS.							
Rates—	£	£	£	£	£	£	£
General ..	4,328,297	3,432,905	1,728,949	832,613	401,559	157,189	13,172,456
Other ..	1,077,235	50,144	645,378		209,961	308,226	
Government grants, etc.	4,703,489	187,918	2,277,578	254,587	70,117	46,036	7,539,725
Loans and other sources ..	(c) 4,395,681	3,845,892	4,673,404	371,577	1,574,231	618,754	15,479,539
Total ..	14,504,702	7,516,859	9,325,309	1,458,777	2,255,868	1,130,205	36,191,720

EXPENDITURE.

Works, services, etc. ..	10,858,223	5,338,633	6,578,456	1,112,558	733,126	760,356	23,381,352
Interest on loans and overdrafts	1,068,730	565,301	1,269,855	48,795	157,208	229,365	5,981,516
Redemptions, sinking funds, etc. ..	1,106,402	659,701	613,484	52,565	210,110		
Administration	618,695	563,323	439,351	128,641	198,385	55,211	2,004,106
Other ..	1,414,192	532,253	533,302	96,883	882,131	29,589	3,488,350
Total ..	15,066,242	7,659,211	9,434,448	1,439,442	2,181,460	1,074,521	36,855,324

VALUATIONS.

Capital value of improved property ..	d 521,654,820	613,522,880	771,894,731	176,617,118 (p)	46,447,667	51,395,384	(h)
Annual value of property ..	(e) 34,424,602	32,045,449	(h)	8,546,808 (g)	2,424,619	2,722,436	(h)

(a) Including particulars for all areas controlled by local governing bodies responsible for the construction and maintenance of roads and streets, such areas being variously known in the several States as cities, towns, boroughs, shires, municipalities and road board districts, etc. Particulars of county councils are excluded from the figures for New South Wales.

(b) Inclusive of Local Boards of Health under the control of Local Government Bodies.

(c) The amount included as loan receipts, £681,431, represents the amount of loan expenditure during the year. In general practice the two amounts would correspond closely as large loans, when floated are frequently drawn upon in instalments which are regulated by the rate of spending.

(d) Excluding Shires.

(e) Assessed annual value, excluding Shires.

(f) Unimproved capital value.

(g) Municipalities only. District Road Boards are rated partly on unimproved capital value and partly on annual value, the total unimproved capital value being £22,058,363, and the annual value £429,335.

(h) Not available.

3. **Local and Semi-Governmental and other Public Authorities : New Money Loan Raisings, Debt and Interest Payable, 1936-37.**—Particulars are given in the next table of new money loan raisings during 1936-37 and the amount of debt at 30th June, 1937, together with the interest payable annually thereon. In addition to those Local Government Authorities referred to in § 3, the table includes details for those boards or statutory authorities administering works or services such as water supply, sewerage, electricity, roads, tramways, harbours, fire brigades, trading activities, marketing agencies, etc.

LOCAL AND SEMI-GOVERNMENT AUTHORITIES.—NEW MONEY LOAN RAISINGS, DEBT AND INTEREST PAYABLE, 1936-37.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
LOCAL GOVERNMENT AUTHORITIES.							
New Money Loan Raisings(a)	2,096	518	1,581	203	125	204	4,727
Funds Provided for Redemption—							
Repayments by Instalments	1,029	552	420	59	114	81	2,255
Amounts Credited to Sinking Fund ..	360	97	254	3	64	52	830
Total	1,389	649	674	62	178	133	3,085
Debt—							
Due to Government ..	5,792	783	10,050	377	48	397	17,447
Due to Banks (Net Overdraft) ..	250	354	929	31	23	31	1,618
Due to Public Creditor ..	31,096	11,963	16,837	859	3,077	2,717	66,549
Total	37,138	13,100	27,816	1,267	3,148	3,145	85,614
Maturing Overseas Interest Payable	7,407	45	9,154	..	562	1,194	18,362
	1,631	589	1,295	58	139	138	3,850

SEMI-GOVERNMENTAL AND OTHER PUBLIC AUTHORITIES.

New Money Loan Raisings(a)	4,476	704	1,291	471	14	87	7,043
Funds Provided for Redemption—							
Repayments by Instalments	1,312	284	247	110	10	26	1,989
Amounts Credited to Sinking Fund ..	400	193	21	42	2	3	661
Total	1,712	477	268	152	12	29	2,650
Debt—							
Due to Government ..	24,807	2,685	8,848	6,478	147	376	43,341
Due to Banks (Net Overdraft) ..	367	123	244	21	..	1	756
Due to Public Creditor ..	45,530	38,021	1,931	863	107	460	86,912
Total	70,704	40,829	11,023	7,362	254	837	131,009
Maturing Overseas Interest Payable	4,084	6,720	..	..	..	..	10,804
	2,526	1,826	421	291	10	36	5,110

(a) Excluding Loans raised and entirely redeemed within the year.

§ 5. Water Supply, Sewerage and Drainage.

1. **New South Wales.**—(i) *General.* In Sydney and its suburbs the water supply and sewerage systems are controlled by the Metropolitan Water, Sewerage and Drainage Board, and in Newcastle and its suburbs by the Hunter District Water Supply and Sewerage Board. In country districts, both waterworks and sewerage works were formerly constructed by the Public Works Department, and, when completed, handed

over to the local government authority affected, by which the cost was to be repaid. Under an Act passed in 1935, the raising of loans by councils until the 30th June, 1938, to meet the capital cost of works was facilitated, and councils are now required to undertake the work of construction. In certain cases the Government contributes towards the cost.

(ii) *Waterworks. (a) Metropolitan.—General.* The catchment area of the metropolitan water system, covering an area of 347 square miles, is drained by the Nepean, Cataract and Cordeaux Rivers. At 30th June, 1937, there were in the system 85 reservoirs with a total capacity of 109,471,000,000 gallons. Storage facilities are provided chiefly by four reservoirs, viz., Avon, 47,153,000,000 gallons; Cataract, 20,743,000,000 gallons; Cordeaux, 20,597,000,000 gallons; and Nepean, 17,898,000,000 gallons. The total length of mains is 4,031 miles; this measurement is the result of an actual check of the system and eliminates superseded lines which were included in previous years. The highest figure of daily consumption yet reached was 148,685,000 gallons on 24th January, 1934.

(b) *Newcastle.—General.* The supply is drawn from the Clichester Reservoir, and is piped about 50 miles to Newcastle. The storage reservoir capacity is 5,000 million gallons. In addition to supplying Newcastle, water is reticulated in Maitland, 20 miles distant from Newcastle, and in the Cessnock coalmining field, as well as in areas adjoining these centres. The supply also extends to the farming areas of Miller's Forest and the lakeside resorts of Belmont, Swansea and Toronto. Water can also be supplied from the Hunter River at Maitland if required. Reservoirs distributed throughout the Water Supply District number 36, with a total storage capacity of 66,480,510 gallons. The total length of mains is 898 miles.

(c) *Water Supplied, etc.* The following table gives the number of houses, the estimated population supplied, and other details for the year ended 30th June, 1937 :—

WATERWORKS, SYDNEY AND NEWCASTLE.—WATER SUPPLIED, 1936-37.

System.	Number of Houses Supplied.	Estimated Population Supplied.	Average Daily Supply.			
			Average Daily Supply.	Total Supply for the Year.	Per House.	Per Head of Estimated Population.
	No.	No.	1,000 Gallons.	1,000 Gallons.	Gallons.	Gallons.
Sydney	332,941	1,407,008	98.345	35,896,000	295	69.98
Newcastle ..	45,745	228,725	10.771	3,931,350	235	47.09

(iii) *Sewerage and Drainage. (a) Metropolitan.—General.* The Sydney sewerage system consists of three main outfalls, discharging into the Pacific Ocean. During 1936-37, new sewers laid measured 203 miles and one mile of stormwater drains was constructed by the Board in 1936-37.

(b) *Newcastle Sewerage Works. General.* The sewerage works for Newcastle and suburbs as originally designed were completed by the Department of Public Works and vested in the Board. Their amplification, extension and improvement were authorized by the Newcastle and Suburbs Sewerage Amplification Act, 1928, passed on the 21st May, 1928. The cost of the work, which was completed in March, 1936, was £817,972.

The Cessnock sewerage work authorized by the Cessnock Sewerage Act, 1931, was completed at a cost of £251,781 and transferred to the Board on 30th June, 1933.

The Stockton sewerage work, authorized by the Stockton Sewerage Act, 1932, was completed at a cost of £106,696 and transferred to the Board on 6th November, 1936.

The Wallsend Sewerage work which is being carried out by the Board was commenced on 25th March, 1937. The estimated cost of the scheme is £144,000. The capital expenditure to the 30th June, 1937, amounted to £8,513.

The Maitland sewerage work, which is now under construction, was authorized by the Maitland District Sewerage Act 1935, which was assented to on 25th March, 1935. The estimated cost of the scheme is £370,000. The capital expenditure to the 30th June, 1937, amounted to £149,796.

The stormwater drainage of Newcastle and adjoining areas is divided into two catchment areas, namely, the works in the Cottage Creek Stormwater Area and the works in the Throsby Creek Stormwater Area. The cost of the Cottage Creek scheme was £275,644 and it was transferred to the Board on 30th May, 1930. The cost of the latter was £798,771, the works being transferred to the Board on 28th February, 1936. Drainage rates have not yet been struck in respect of either of these stormwater drainages.

(c) *Particulars of Services.* The following table supplies details of sewerage services and stormwater drains as at 30th June, 1937.

SEWERAGE AND DRAINAGE, SYDNEY AND NEWCASTLE, 1935-36.

System.	Houses Drained.	Population Served.	Length of Sewers.	Length of Stormwater Drains.
	No.	No.	Miles.	Miles.
Sydney	234,509	997,302	2,382.0	83.0
Newcastle	25,289	126,445	277.2	34.8

(d) *Finances.* The following statement shows the revenue and expenditure on account of the services of waterworks, sewerage and drainage during the year 1936-37:—
WATERWORKS, SEWERAGE AND DRAINAGE, SYDNEY AND NEWCASTLE, 1936-37.

Item.	Revenue.	Working Expenses, Sinking Fund Contribution, Renewals and Exchange. (a)	Interest.	Surplus + or Deficit. —	Ratio of Working Expenses and Sinking Fund Contribution, etc. to Revenue.	Capital Debt.	Ratio of Revenue to Capital Debt.
	£	£	£	£	%	£	%
Sydney—							
Water ..	1,645,552	673,927	840,699	+ 130,926	40.95	23,897,891	6.89
Sewerage ..	935,747	387,739	548,412	— 404	41.44	16,329,700	5.73
Drainage ..	40,059	16,994	31,174	— 8,109	42.42	908,533	4.41
Total ..	2,621,358	1,078,660	1,420,285	+ 122,413	41.15	41,136,124	6.37
Newcastle—							
Water ..	234,286	99,102	99,582	+ 35,602	42.30	2,067,348	7.90
Sewerage ..	106,185	55,330	61,398	— 10,543	52.11	2,057,480	5.16
Drainage ..	(b)	9,070	35,366	— 44,436	..	1,079,977	..
Total ..	340,471	163,502	196,346	— 19,377	48.02	6,104,805	5.58

(a) Sinking fund contributions amounted to £147,540 in the case of the Sydney system, comprising £84,112 for water, £50,071 for sewerage and £13,466 for drainage, the distribution of exchange aggregating £108,773, being £62,881, £43,780 and £2,103 respectively. In the Newcastle system sinking fund contributions totalled £22,750 and exchange £25,740, the charges to water account being £11,311 and £13,195, to sewerage £7,701 and £8,046, and to stormwater drainage £1,710 and £4,500 respectively.

(b) Rate not struck until 1st July, 1937.

(iv) *Waterworks, Sewerage and Stormwater Drainage Works in Country Towns.** The capital indebtedness of country towns' water and sewerage schemes was reviewed by a special committee appointed in 1933 and substantial remissions were made in some instances. At the 30th June, 1937, public water supplies with a total cost of £3,945,568 which had been charged to councils (after allowing for capital remissions) were in operation in 95 towns outside the Metropolitan and Hunter River districts. Twenty-three towns

* Excluding the area of operations of the Hunter District Water Supply and Sewerage Board (Newcastle).

were seweraged and 12 towns had stormwater channels constructed by the Public Works Department. The capital debt of the sewerage schemes and stormwater channels was £1,634,551.

The water supply systems of Broken Hill and Junee are administered by the Public Works Department under special Acts. These services entailed capital expenditure amounting respectively at 31st December, 1936, to £516,531 and £237,718.

2. *Victoria.*—(i) *A. Melbourne and Metropolitan Board of Works.* (a) *General.* All land within 13 miles of the Post Office at the corner of Bourke and Elizabeth streets, Melbourne, together with the remaining areas of the Cities of Mordialloc and Moorabbin and further portions of the Shire of Dandenong, but excluding 11 square miles in the Shires of Keilor and Braybrook under the control of the Keilor and St. Albans Waterworks Trust, is included within the metropolitan area for water supply, sewerage, main drainage and river improvement purposes. This territory covers 436 square miles of land area, and in 1937 embraced 26 cities, and parts of one other city and of 11 shires, or a total of 38 municipalities or portions thereof. In addition, the Board supplies water to certain municipalities outside the metropolitan area.

The Board's liability on the 30th June, 1937, for loans raised was £25,145,460. The Board was then still empowered to borrow £1,994,474 before reaching the limit of its borrowing powers.

(b) *Receipts and Expenditure.* The ordinary receipts and expenditure for the year 1936-37 were £2,149,248 and £1,632,067 respectively, and the loan receipts and expenditure, £1,580,511 and £1,974,631 (including loan redemption £1,395,594) respectively.

In the following tables showing the finances of the various services, charges against General Revenue Account amounting to £383,019 have not been included.

B. *Melbourne Water Supply.* (a) *Number of Houses, Population, and Quantity of Water Supplied.* The following table gives particulars of services for the year 1936-37. The rate levied was sevenpence in the pound on the net annual value of the property served

WATER SUPPLY, MELBOURNE.—PARTICULARS OF SERVICES.

Year ended 30th June—	Number of Houses Supplied.	Estimated Population Supplied.	Average Daily Consump- tion.	Total Water Consumption for the Year.	Average Daily Consumption.		Length of Mains, Reticu- lation, etc.
					Per House.	Per Head of Estimated Population.	
	No.	No.	1,000 Gallons.	1,000 Gallons.	Gallons.	Gallons.	Miles.
1937 ..	271,771	1,078,931	73,102	26,682,355	268.98	67.76	3.074

(b) *Capital Cost, Revenue, Working Expenses, Interest and Surplus.* The total cost of construction, revenue, working expenses, percentage of working expenses on revenue, interest and surplus for the year ended 30th June, 1937, are given below. The total capital cost to that date was £11,765,692.

WATER SUPPLY, MELBOURNE.—FINANCES.

Year ended 30th June—	Capital Cost for Year.	Revenue.	Working Expenses.	Percentage of Working Expenses on Revenue.	Interest. (a)	Surplus
	£	£	£	%	£	£
1937 ..	141,983	884,964	142,097	16.06	524,470	218,397

(a) Includes interest on renewals and payments to sinking funds.

O. Melbourne Sewerage. (a) Number of Houses Connected, etc. Particulars of services for the year 1936-37 are given below. The rate levied was one shilling and two pence in the pound on the net annual value of the property served.

SEWERAGE, MELBOURNE.—PARTICULARS OF SERVICES.

Year ended 30th June—	Number of Houses for which Sewers are Provided.	Estimated Population for which Sewers are Provided.	Average Daily Pumping.	Total Sewage Pumped for the Year.	Average Daily Pumping.		Length of Sewers, etc.
					Per House.	Per Head of Estimated Population.	
	No.	No.	1,000 Gallons.	1,000 Gallons.	Gallons.	Gallons.	Miles.
1937 ..	255,950	1,016,121	47,733	17,422,380	186.5	46.9	2,531

(b) Capital Cost, Revenue, Working Expenses, Interest and Surplus. The total cost of construction, revenue, working expenses, percentage of working expenses on revenue, interest and surplus for the year ended 30th June, 1937, are given below. The total capital cost to that date was £13,612,488.

SEWERAGE, MELBOURNE.—FINANCES.

Year ended 30th June—	Capital Cost for Year.	Revenue.	Working Expenses.	Percentage of Working Expenses on Revenue.	Interest (a)	Surplus.
	£	£	£	%	£	£
1937 ..	176,460	1,037,539	155,965	15.03	672,343	209,231

(a) Includes interest on renewals and payments to sinking funds.

(c) Metropolitan Sewage Farm. The total area of the farm at the 30th June, 1937, was 22,634 acres. The following table gives details in connexion therewith for the year 1936-37. The total capital cost to the 30th June, 1937, was £1,214,949.

METROPOLITAN SEWAGE FARM.—FINANCES.

Year ended 30th June—	Capital Cost for Year.	Cost of Sewage Disposal	Interest.	Trading Profit.	Net Cost of Sewage Purification.
	£	£	£	£	£
1937 ..	27,644	26,528	54,356	15,517	65,367

(d) Disposal of Night-soil from Unsewered Premises. The total number of pans cleaned by the Board at its depots at Brooklyn, Campbellfield and Moorabbin, where the night-soil was disposed of by burial, was 605,273 for the year 1936-37.

D. Melbourne Drainage and Rivers—Capital Cost, Revenue, Working Expenses, Interest and Surplus. The following table gives details in connexion therewith for the year ended 30th June, 1937. The total capital cost to that date was £1,189,016.

DRAINAGE AND RIVERS, MELBOURNE.—FINANCES.

Year ended 30th June—	Capital Cost for Year.	Revenue.	Working Expenses.	Percentage of Working Expenses on Revenue.	Interest. (a)	Surplus.
	£	£	£	%	£	£
1937	88,954	82,667	15,820	19.14	60,690	6,157

(a) Includes interest on renewals and payments to sinking funds.

(ii) *Geelong Waterworks and Sewerage Trust.* (a) *General.* The Geelong Waterworks and Sewerage Trust, constituted in 1908, consists of five commissioners. The amount of loan money which may be raised is limited to £600,000 for water supply undertaking, £760,000 for sewerage undertaking, and £270,000 for sewerage installation to properties under the deferred payment system. The population supplied is about 47,169.

(b) *Water Supply.* The catchment area is about 16,000 acres. The storage capacity of all the reservoirs is 2,738,119,800 gallons. In addition, the State Rivers and Water Supply Commission has made available a supplementary supply of a minimum quantity of 550 million gallons of water per annum from the upper reaches of the river Barwon. There are 306 miles of mains within the water supply area. The total expenditure on waterworks to the 30th June, 1937, was £709,289, and the revenue for the year 1936-37 was £53,489; the sinking fund appropriations at June, 1937, amounted to £67,641, of which £64,350 has been expended in the redemption of loans. There is a water rate of one shilling in the pound (with minima of five shillings for unbuilt on land and one pound for tenements) on the net annual value of rateable properties. The Replacement and Contingencies Reserve (Water) amounts to £15,000.

(c) *Sewerage Works.* The sewerage scheme consists of a main outfall sewer to the ocean at Black Rock, about 9 miles from Geelong, and 13½ miles of main sewers and 141½ miles of reticulation mains have been constructed. The drainage area is 9,538 acres, and the number of buildings within the drainage area is 11,727, and within the sewered areas 11,494, while 11,470 buildings have been connected with the sewers. The total expenditure to 30th June, 1937, on sewerage works was £644,744, and on the cost of sewerage installations under deferred payment conditions £257,200, of which £6,226 is outstanding. The revenue in 1936-37 amounted to £38,092 and the sinking fund appropriations at June, 1937, amounted to £64,731, of which £62,002 had been expended in the redemption of loans. A general rate of one shilling and threepence in the pound is levied on the net annual value of rateable properties. Replacement and Contingencies Reserves (Sewerage) amount to £10,300.

(iii) *The Ballarat Water Commission and the Ballarat Sewerage Authority.* (a) *General.* The Ballarat Water Commission was constituted on 1st July, 1880, and the Ballarat Sewerage Authority on the 30th November, 1920. The members of the Water Commission are the Sewerage Authority. The Commissioners number seven, three (one of whom is chairman) being appointed by the Government, and four being elected by the Council of the City of Ballarat.

(b) *Water Supply.* The Water Supply District embraces an area of about 27 square miles, containing a population of about 43,000. The total storage capacity of the six reservoirs is 2,215,558,000 gallons.

The capital cost of construction of the waterworks is £670,413. The liabilities are loans due to the Government amounting to £290,545 as at 31st December, 1937. The revenue for the year 1937 was £33,809.

(c) *Sewerage.* The scheme as designed provides for a population of 90,000 persons. The capital cost of construction to 31st December, 1937, was £421,347. The method of sewage disposal is by sedimentation, oxidation and sludge digestion. Eighty sewered areas have been declared as at 1st January, 1937, comprising 8,603 tenements.

The scheme is financed by debenture issue loans from various financial institutions, £462,620 having been provided up to 31st December, 1937, of which £49,780 has been redeemed, leaving a loan liability of £412,840 for constructional works. An expenditure, of £175,333 was incurred for house connexions, of which £144,223 has been redeemed the balance outstanding being £31,110.

(iv) *Bendigo Sewerage Authority.* The members of the Bendigo City Council constitute this Authority. The sewerage district comprises the populated area of the city of Bendigo. The works are completed and the expenditure to 30th September, 1937, was £331,587 for sewerage scheme and £183,335 for house connexions, excluding those tenements connected privately. The number of tenements connected to sewers is 6,219.

(v) *Sewerage in other Country Districts.* Sewerage authorities have been constituted also in the following districts:—Ararat, Bairnsdale, Benalla, Castlemaine, Colac, Dandenong, Echuca, Hamilton, Horsham, Kerang, Kyneton, Mildura, Sale, Shepparton, Swan Hill, Wangaratta, Warragul and Warrnambool.

(vi) *Water Supply in Country Towns and Districts.* Most of the country waterworks are controlled by the State Rivers and Water Supply Commission, but in some instances the control is by waterworks trusts or by municipal corporations.

The following table gives particulars regarding waterworks under the control of trusts and municipal corporations for the year 1937:—

COUNTRY WATERWORKS, VICTORIA.—FINANCES.

Year.	Under Waterworks Trusts.				Under Municipal Corporations.			
	Number of Trusts.	Capital Cost	Capital Indebtedness.	Current Interest Outstanding.	Number of Corporations.	Capital Cost.	Capital Indebtedness.	Current Interest Outstanding.
	No.	£	£	£	No.	£	£	£
1937 ..	109	1,954,271	1,408,103	1,296	17	883,123	567,647	118

3. *Queensland.*—(i) *Department of Works, Water Supply and Sewerage, Brisbane City Council.* (a) *General.* The whole of the water supply in the metropolitan area and the bulk supply to the City of Ipswich is filtered.

The available storage in the Brisbane River is 543 million gallons, the catchment area being approximately 4,000 square miles. In Lake Manchester the storage capacity is 5,700 million gallons, and the catchment area 28.5 square miles. The capacities of Enoggera and Gold Creek reservoirs are 1,000 million gallons and 407 million gallons respectively, and the catchment areas 12.8 and 3.8 square miles respectively.

The total capacity of the service reservoirs on Tarragindi Hill, Eildon Hill, Bartley's Hill, Highgate Hill, Roles Hill, Wickham Terrace and Paddington (elevated tank) is approximately 27,356,000 gallons.

(b) *Waterworks. Summary.* The following table gives a summary of operations for the year ended 30th June, 1937 :—

WATERWORKS, BRISBANE.—SUMMARY.

Year ended 30th June—	Length of Reticulation Mains.	Number of Tenements Connected. (a)	Estimated Population Supplied.	Quantity Supplied.	Average Daily Supply	Average Daily Supply per Head of Estimated Population.
	Miles.	No.	No.	1,000 Gallons.	Gallons.	Gallons.
1937	915½	71,083	302,103	5,104,650	13,985,343	47·04

(a) Exclusive of Ipswich, which is a bulk supply.

The total length of the trunk mains is 206½ miles.

(c) *Sewerage.* At the 30th June, 1937, 25,098 premises were connected to the Council's sewerage system, the estimated population served being 112,941 persons. The total length of sewers in operation is 777½ miles, consisting of 397½ miles of sewers within premises, and 380 miles of main and reticulation sewers.

(d) *Waterworks and Sewerage Works Finances.* The subjoined table gives particulars regarding finance during the year ended 30th June, 1937 :—

WATER AND SEWERAGE WORKS, BRISBANE.—FINANCES.

Year ended 30th June—	Capital Cost.	Net Revenue from Rates.	Management and Working Expenses.	New Works Construction.	Interest and Redemption of Loans, including Sinking Fund and Overdraft.
	£	£	£	£	£
1937	9,911,980	733,097	165,204	552,835	(a) 602,618

(a) Exclusive of the sum of £52,539 paid as exchange, registry fees, etc.

(ii) *Country Towns.*—(a) *Water Supply.* In addition to the city of Brisbane, there were at the end of the year 1936 sixty-six country towns in Queensland provided with water supply systems (including three in the course of construction) constructed by municipalities chiefly from Government loans. The subjoined statement gives particulars of all water supply systems, exclusive of Brisbane, for the year 1936 :—

COUNTRY WATER SUPPLY SYSTEMS.—QUEENSLAND.

Cost of Construction to 31st December, 1936—£3,145,724.

Receipts.		£	Expenditure.		£
Rates and sales of water	..	268,240	Office and salaries	..	21,465
Government and other loans	..	78,371	Construction	..	159,764
Government subsidy of loans	..	71,106	Maintenance	..	121,202
Other	.. ..	19,724	Interest and redemption	..	126,829
			Other expenses	..	12,892
Total ..	.. ..	437,441	Total ..	.. ..	442,152
Assets	.. ..	2,433,928	Liabilities	.. ..	1,873,199

(b) *Sewerage Systems.* At the 31st December, 1936, there were five Cities outside the Metropolitan area Maryborough, Mackay, Rockhampton, Townsville, and Toowoomba, with sewerage works. The Toowoomba works have been in operation since 1926, whilst those for the other cities were in course of construction at the end of the year.

4. **South Australia.**—(i) *General.* The water supply and sewerage systems in this State are constructed and maintained by the Public Works Department.

(ii) *Adelaide Waterworks.* (a) *Summary.* The following table gives particulars for the year 1936-37, the figures for consumption being recorded by gaugings taken at the reservoirs and including evaporation and absorption. There are 56,002 meters in the Adelaide District.

ADELAIDE WATERWORKS.—SUMMARY.

Year ended 30th June—	Number of Assessments.	Annual Value.	Area Supplied.	Capacity of Reservoirs.	Length of Mains.	Annual Consumption.
	No.	£	Acres.	Million Gallons.	Miles.	Million Gallons.
1937	133,193	5,154,993	116,307	14,435	1,318	7,739

(b) *Finances.* Particulars for the year 1936-37 are given below :—

ADELAIDE WATERWORKS.—FINANCES.

Year ended 30th June—	Capital Cost.	Revenue.		Expenses.				Percentage of Net Revenue on Capital Cost.
		Rates.	Total.	Adminis- tration.	Mainten- ance.	Other.	Total.	
	£	£	£	£	£	£	£	%
1937	4,458,872	332,351	400,472	21,957	57,368	17,085	96,410	6.82

(iii) *Adelaide Sewerage.* Particulars for the year 1936-37 are given hereunder :—

ADELAIDE SEWERAGE.—SUMMARY.

Year ended 30th June—	Length of Sewers.	Number of Con- nexions.	Capital Cost of Revenue- Producing Works.	Revenue.		Working Expenses.		Percentage of Net Revenue on Capital Cost.
				Rates, etc.	Total.	Adminis- tration, Main- tenance, etc.	Total.	
	Miles.	No.	£	£	£	£	£	%
1937	528	53,882	1,682,797	167,722	175,802	28,221	32,786	8.50

(iv) *Country Water Supply. (a) Summary.* The chief items of information regarding these undertakings are set forth in the table below for the year 1936-37. There are 32,909 meters in country districts.

COUNTRY WATERWORKS, SOUTH AUSTRALIA.—SUMMARY.

Year ended 30th June—	Number of Assessments.	Area Supplied.	Capacity of Reservoirs.	Length of Mains.	Annual Consumption.
	No.	Acres.	Million Gallons.	Miles.	Million Gallons.
1937	51,751	11,729,677	9,305	4,954	5,350

(b) *Finances.* The next table gives financial information for the year 1936-37 :—

COUNTRY WATERWORKS, SOUTH AUSTRALIA.—FINANCES.

Year ended 30th June—	Capital Cost.	Revenue.		Working Expenses.				Percentage of Net Revenue on Capital Cost.
		Rates.	Total.	Adminis- tration.	Mainten- ance.	Other.	Total.	
	£	£	£	£	£	£	£	%
1937 ..	9,852,398	157,959	198,291	21,126	69,769	32,301	123,196	0.76

(v) *Other Sewerage Systems.* Information in summarized form is given below regarding the two suburban sewerage systems, viz., the Glenelg system and the Port Adelaide and Semaphore system, for the year 1936-37 :—

SUBURBAN SEWERAGE SYSTEMS, SOUTH AUSTRALIA.—SUMMARY.

Year ended 30th June—	Length of Sewers.	Number of Con- nections.	Capital Cost.	Revenue.		Working Expenses.		Percentage of Net Revenue on Capital Cost.
				Rates.	Total.	Adminis- tration and Mainten- ance.	Total.	
	Miles.	No.	£	£	£	£	£	%
1937 ..	377	21,908	1,667,659	67,030	68,792	35,908	38,917	1.79

5. *Western Australia.*—(i) *General.* The water supply and sewerage systems of Western Australia are principally under the management of Government Departments, and are divided into the following categories :—(a) Metropolitan Water Supply, Sewerage and Drainage, covering Perth, Fremantle, Claremont, Guildford, Midland Junction and Armadale District; (b) Goldfields Water Supply; (c) Water Supply of other towns; (d) Agricultural Water Supply; and (e) Artesian and sub-artesian waters.

(ii) *Metropolitan Water Supply, Sewerage and Drainage. (a) General.* The sources of the metropolitan water supply are the Victoria Reservoir, Mundaring Reservoir, Churchman Brook Reservoir, Canning Dam, fifteen bores and the Armadale and Wungong pipe head dams. During the year 1936-37 the construction of the Canning Dam was continued and at 30th June, 1937, there were 2,135 million gallons impounded.

The sewerage treatment works of Perth are undergoing modernization and a change-over from septic tanks and filters to activated sludge treatment is being carried out. Fremantle treatment works consist of septic tanks with ocean outfall for effluent. All sewage effluent of Perth and suburbs is now discharged direct to the ocean. Various reticulation works were undertaken in 1936-37 extending the Perth sewered areas to the south side of the Swan River. At the 30th June, 1937, the number of premises connected with sewers was 30,131.

(b) *Summary.* The following table gives particulars regarding water supply for the year 1936-37 :—

METROPOLITAN WATER SUPPLY, WESTERN AUSTRALIA.—SUMMARY.

Year ended 30th June—	Estimated Population Supplied.	Number of Services.	Water Supplied.	Average Daily Supply.		Number of Meters.	Length of Mains.
				Per Head.	Per Service.		
	No.	No.	1,000 Gallons.	Gallons.	Gallons.	No.	Miles.
1937	233,997	58,085	4,943,926	57.88	233.19	38,162	915

(c) *Finances.* The table hereunder gives separate information for the water supply and sewerage and drainage branches for the year 1936-37 :—

**METROPOLITAN WATER SUPPLY, AND SEWERAGE AND DRAINAGE,
WESTERN AUSTRALIA.—FINANCES.**

Year ended 30th June—	Water Supply.			Sewerage and Drainage.		
	Capital Cost	Revenue	Expendi- ture.	Capital Cost.	Revenue.	Expendi- ture.
	£	£	£	£	£	£
1937	4,495,533	264,493	260,332	2,964,085	137,424	145,141

(iii) *Goldfields Water Supply.* The source of supply for the Coolgardie and adjacent goldfields, as well as for towns and districts on or near the pipe-line, is the Mundaring Reservoir, which has a capacity of 4.650 million gallons. There are several classes of consumers—the railways, the mines, domestic and other and in 1936-37 the railways consumed 6½ per cent., the mines 37½ per cent., and domestic, etc., 56¼ per cent. of the supply. The following table gives details for the year 1936-37 :—

GOLDFIELDS WATER SUPPLY, WESTERN AUSTRALIA. SUMMARY.

Year ended 30th June—	Total Con- sumption.(a)	Number of Services.	Length of Water Mains.	Capital Cost.	Revenue.	Expendi- ture.
	1,000 gallons.	No.	Miles.	£	£	£
1937	1,644,000	12,567	1,674	5,113,202	291,688	261,800

(a) Includes 146,686,000 gallons supplied to the Metropolitan Water Supply Department.

(iv) *Water Supply of Other Towns.* During the year 1936-37 water supplied to other towns and districts amounted to 288,528,000 gallons, distributed as follows :— Railways, 20,941,000 gallons; mines 20,099,000 gallons; and 241,518,000 gallons to domestic and other consumers.

(v) *Agricultural Water Supply.* During the year 1936–37, four wells were sunk and three tanks excavated. During the twenty-seven years from the 1st July, 1910, to the 30th June, 1937, 522 tanks were built, 375 wells sunk, and 3,555 bores put down to a total depth of 166,146 feet. Of the bores mentioned, 530 yielded fresh and 309 stock water.

(vi) *Artesian and Sub-artesian Waters.* Up to the 30th June, 1937, the total number of bores put down in search of artesian or sub-artesian water was 356, ranging in depth from 30 to 4,006 feet. These figures include 51 bores sunk in the metropolitan area.

6. *Tasmania.*—(i) *Hobart Water Supply.* The cost of this undertaking to the 30th June, 1937, was £496,211, but a considerable amount of reticulation work has been done out of revenue and not charged to capital account. The outstanding loans at 30th June, 1937, amounted to £399,948. At the same date the number of tenements supplied in the city and suburbs was 13,830 and the length of reticulation mains was 142½ miles. The revenue for the year 1936–37 was £38,576.

(ii) *Hobart Sewerage System.* The revenue for the year ended 30th June, 1937, was £36,894. Up to that date 82.3 miles of sewers had been laid in connexion with the original city system at a cost of £218,557 and 8,649 tenements connected. Since the original city was sewerred, the municipalities of Queenborough and New Town have been included in the city, and are now being sewerred. In Queenborough 28.0 miles of sewers, connecting with 1,711 tenements, have been constructed at a cost of £131,109. In New Town a total of 38.6 miles of sewers has been laid, and 1,703 properties connected. The cost to 30th June, 1937, including surveys and sewerage outfall, was £114,655.

§ 6. Harbour Boards and Trusts.

1. *New South Wales.*—(i) *Maritime Services Board of New South Wales.* (a) *General.* The Port of Sydney is administered by the Maritime Services Board of New South Wales, a corporate body of five Commissioners, three of whom are full-time members and two, representing shipping and commercial interests, part-time members. The Board was brought into existence on the 1st February, 1930, by the Maritime Services Act, 1935, in order to co-ordinate the port and navigation services of the State, which had previously been administered by the Sydney Harbour Trust in the case of the Port of Sydney and by the State Department of Navigation in the case of Newcastle and the outports.

(b) *Port of Sydney.* The functions of the Board in respect of the Port of Sydney include the provision of adequate wharfage, channels, lights and other port facilities, the control of shipping, pilotage, the imposition and collection of rates and charges on goods and vessels, the licensing of harbour craft and the general management and control of the Port.

The entrance to Sydney Harbour is nearly a mile wide, and is not less than 80 feet deep. Between the entrance, known as "The Heads", and the Harbour proper, a distance of 4 miles, there are two separate channels, each with a depth of 40 feet at low tide and a width of 700 feet. The foreshores are 188 miles in length, and the total area of the port is 14,284 acres, or 22 square miles, of which about one-half has a depth of 30 feet or more at low water ordinary spring tide. The mean range of tide is 3 feet 6 inches.

Exclusive of ferry wharves, and jetties used for private purposes, there are 64,500 feet of wharfage controlled by the Maritime Services Board, and 9,500 feet of commercial wharfage privately owned. There is ample shed accommodation, and the port is well equipped with railway wharfage for the handling of traffic which is required to pass direct from ship to rail and vice versa. For the wheat export trade, in both bulk and bags, ample wharfage accommodation and handling equipment of the most modern character are available. Facilities in all directions can be very considerably extended when required. Approximately two thirds of the shipping wharves controlled by the Board are leased to shipping companies, the remainder, which are unleased, are directly maintained by the Commissioners.

The subjoined table gives particulars concerning the finances of the Board for the year 1936-37 :—

MARITIME SERVICES BOARD.—FINANCES.

Year ended 30th June	Revenue.							
	Wharfrage and Harbour Rates.	Tonnage Rates and Berthing Charges.	Other Sources.	Total.	Working Expenditure.	Interest.	Surplus.	Total Capital Debt.
1937 ..	£ 745,978	£ 31,267	£ 316,446	£ 1,093,691	£ 635,055	£ 648,209	£ 255,427	£ 11,452,929

(a) Includes £57,154 exchange.

(b) Includes £51,853 sinking fund contributions.

(c) *Port of Newcastle.* In regard to the volume of shipping entered, Newcastle ranks second in importance in New South Wales and fourth in Australia. It is primarily a coal-loading port, but its activities cover the shipment of general commodities. The wharfrage and other facilities of the port have been further improved and extended to meet the actual and the anticipated growth of trade with the expansion of industry in the district. A terminal elevator, which has been erected for the handling of bulk wheat, has enhanced the importance of Newcastle as an exporting centre.

(d) *Port Kembla.* Port Kembla, which is sharing to an increasing extent in the shipping trade of the State, has an area of 330 acres, of which 239 acres have a minimum depth of 24 feet. Being adjacent to the southern coalfields and a rapidly developing industrial centre, its trade is growing and a great future for the port is predicted.

(e) *Other Ports.* In addition to the ports of Sydney and Newcastle, the Board controls 29 outports along the coastline of 609 miles.

(ii) *Port Charges.* There has been much ill-informed criticism of the port charges levied upon shipping in Australian ports. The fact is that the Government charges compare favourably with those of other parts of the world when the services rendered are taken into consideration. They are much lower than the charges at the leading ports of the United Kingdom. Direct comparisons of port charges are difficult, if not impossible, to make, because of the differing port customs, and the absence of similarity in the nature and methods of applying them. It is considered that the most satisfactory method of comparison is to take the total collections by the port authorities, and arrive at the average rate per ton. This has been done in the case of the two leading ports in Australia and in the United Kingdom, and the figures are as follows :—

PORT CHARGES.—AUSTRALIA AND UNITED KINGDOM.

Port.		Net Tonnage of Vessels Entered.	Charges on Shipping.	Average Rate per Ton of Shipping.
			£	d.
Australia—				
Sydney (1936-37)	.. ..	10,993,395	221,835	4.8
Melbourne (1936)	.. ..	8,168,526	193,753	5.6
United Kingdom—				
London (1936-37)	.. ..	31,075,655	1,373,966	10.6
Liverpool (1936-37)	.. ..	21,399,499	1,270,069	14.2

2. *Victoria*.—(i) *Melbourne Harbor Trust*. (a) *General*. Information regarding the origin and constitution of this trust will be found in Official Year Book No. 12, pp. 970 *et seq.* At the 31st December, 1937, the sheds available for wharfage accommodation had a length of 18,787 feet, covering an area of 1,246,530 square feet. The area of water in the bay and River Yarra under the control of the Trust is approximately 5,321 acres and the total length of wharves, piers and jetties in the port is 61,850 feet, giving an area of over 57 acres of wharfage, of which 51,987 feet is effective berthing space. During 1937 the quantity of material raised by dredging and excavation in the river and bay amounted to 2,551,499 barge yards at a cost of £98,622. The Trust has expended £354,524 in reclaiming land within its jurisdiction by depositing 16,747,926 barge yards of material thereon.

(b) *Finances*. During the year ended 31st December, 1937, the revenue (excluding refunds) of the Trust amounted to £846,258, and expenditure to £842,465 (including the amount of £161,513 paid to Consolidated Revenue and Geelong Harbor Trust). There was a net Surplus on revenue account of £3,793. Appropriation for sinking fund and charges for depreciation, renewals and insurance against revenue account for the year amounted to £200,868. The capital expenditure for the year was £52,078. Up to the 31st December, 1937, the total capital expenditure amounted to £9,040,209 the loan indebtedness at that date being £4,179,632.

(ii) *Geelong Harbor Trust*. The Geelong Harbor Trust was reconstituted in 1934 under the provisions of the Melbourne and Geelong Harbor Trusts Act 1934. The Trust is under the control of three Commissioners appointed by the Governor in Council. Revenue for the year 1937 was £105,903. Revenue expenditure was £92,177 and capital expenditure £38,715, while loans outstanding at the end of that year amounted to £557,310.

(iii) *Harbor Boards*. The Harbor Boards Act 1928 made provision for the establishment of Harbor Boards at Gippsland Lakes, Welshpool, Warrnambool, Port Fairy and Portland, all of which ports were, at the commencement of the operation of this Act, under the control of the Public Works Department. The Warrnambool Harbor Board, which was constituted on 29th May, 1928 under the provisions of this Act, was abolished on 30th June, 1936 by Order in Council and the port was restored to the control of the Public Works Department.

During the nine months ended 30th June, 1936, ordinary revenue amounted to £1,112 and ordinary expenditure was £1,089.

3. *Queensland*.—(i) *Bowen Harbour Board*. The Bowen Harbour Board consists of seven members, of whom two are appointed by the Governor in Council and the remainder elected by the electors of the town of Bowen and adjacent shires. The district under its jurisdiction comprises the area within the boundaries of the town of Bowen, the shires of Proserpine and Wangaratta, and division I. of the shire of Ayr. The capital expenditure for the year 1937 was £1,155, while for the same period the revenue was £21,235 and the expenditure £21,084, of which £15,041 was from revenue.

(ii) *Bundaberg Harbour Board*. The Bundaberg Harbour Board consists of nine members, of whom one is appointed by the Governor in Council, four elected by the electors of the city of Bundaberg, and two each by the electors of the shires of Gooburrum and Woongarra.

The capital expenditure for the year 1937 was £13,475 while for the same period the revenue was £20,352 and expenditure £29,193.

(iii) *Cairns Harbour Board*. The Cairns Harbour Board, which controls the port, consists of thirteen members, representing the city of Cairns and six adjoining shires. The wharves are exclusively under the control of this Board and consist of 1,000 lineal feet in reinforced ferro-concrete, upon which spacious sheds are erected with a floor

area of 14,400 square feet. A most comprehensive electrical equipment is erected at the wharves capable of handling into ship two hundred tons of sugar per hour and a special sugar storage shed, fitted with this equipment, can accommodate 7,500 tons. The Board's suction dredger maintains a minimum depth of 22 feet of water in the entrance channel. Ships drawing over 27 feet of water can berth at wharves. Railway facilities are provided in front of and at rear of the wharves. The revenue of the Board, derived from harbour, berthage and miscellaneous dues, etc., for the year 1937, was £71,320, and expenditure £67,884.

(iv) *Gladstone Harbour Board.* The Gladstone Harbour Board is composed of seven members, two of whom are appointed by the Governor in Council and five elected by the electors of the town of Gladstone and the shires of Calliope and Miriam Vale.

The capital expenditure for the year 1937 was £3,416 and the total to the end of 1937 amounted to £111,657. The revenue for 1937 was £13,019, and the expenditure £14,969.

(v) *Mackay Harbour Board.* The Mackay Harbour Board consists of nine members elected by the electors of the city of Mackay and the shires of Pioneer, Sarina, Mirani and Nebo. The harbour is in course of construction.

Expenditure for the year 1937 totalled £172,981 of which £157,706 was spent on construction. Receipts totalled £133,979, harbour dues amounting to £23,013, Government Loan to £51,489, and Government subsidy of Loan to £48,904.

(vi) *Rockhampton Harbour Board.* The Rockhampton Harbour Board consists of eleven members, of whom seven are elected by the electors on the rolls of the city of Rockhampton, and the shires of Mount Morgan, Fitzroy and Livingstone. The remaining four are elected by the councillors of groups of inland shires.

The revenue for the year 1937 was £52,061 and the expenditure £52,640. The capital expenditure for the year 1937 was £17,999, and the total to the end of 1937 was £799,911.

(vii) *Townsville Harbour Board.* The Townsville Harbour Board is composed of nine members, of whom two are appointed by the Governor in Council and the remaining seven are elected by the electors of Townsville and adjacent towns and shires. All harbour works and conveniences for the use of shipping are under the control of the Board. The capital expenditure for the year 1937 was £23,797; the receipts for the year 1937 were £83,831, and the expenditure £86,461.

HARBOUR BOARDS, QUEENSLAND.—FINANCES.

Year ended 31st December.	Revenue.		Expenditure.					Assets.	Liabili- ties.
	Wharfage and Harbour Dues.	Total.	Interest on Loans.	Redem- ption of Loans.	Construc- tion and Mainte- nance.	Other.	Total.		
1937 ..	£ 215,183	£ 395,797	£ 50,460	£ 44,763	£ 317,816	£ 32,173	£ 445,212	£ 1,778,941	£ 2,073,729

4. *Western Australia.*—(i) *Fremantle Harbour Trust.* (a) *General.* Fremantle Harbour is controlled by a Board of five Commissioners appointed by the Governor in Council. A description of the works was given in a previous Year Book (see No. 12 p. 973). Since that account was written, the inner harbour and entrance channel have been dredged to a depth of 36 feet below the lowest known low water. The berthage accommodation at all the quays has also been deepened to 36 feet.

(b) *Finance.* The following table gives financial data for the year 1936-37 :—

FREMANTLE HARBOUR TRUST.—FINANCES.

Year ended 30th June—	Revenue. (a)	Expenditure.						Total.
		Working Expenses.	Interest.	Sinking Fund.	Renewals Fund.	Capital Expendi- ture.	Surplus Revenue. (b)	
	£	£	£	£	£	£	£	£
1937 ..	447,884	221,157	139,279	17,060	2,900	7,606	87,118	474,220

(a) Including interest from sinking funds, £5,029.

(b) Paid to Consolidated Revenue.

(ii) *Bunbury Harbour Board.* (a) *General.* The Bunbury Harbour Board consists of five members appointed by the Government. The jetty is 4,900 feet long, with berthage accommodation of 3,700 feet, and is electrically lighted.

(b) *Finances.* Details for the year 1936-37 are given hereunder. Surplus revenue is paid into Consolidated Revenue Fund to meet interest and sinking fund :—

BUNBURY HARBOUR BOARD.—FINANCES.

Year ended 30th June—				Capital Account.	Revenue.	Expenditure.
				£	£	£
1937 ..	..	..	..	609,928	22,520	(a) 41,218

(a) Includes Interest on Capital Account £27,724, none of which was contributed from the earnings of the Board.

5. *Tasmania.*—(i) *Marine Board of Hobart.* (a) *General.* The Marine Board of Hobart consists of nine wardens elected by the ship-owners of the Port of Hobart and the importers and exporters of goods into or from any port within the jurisdiction of the Board.

(b) *Finances.* The following table gives details for the year ended 30th June, 1937 :—

MARINE BOARD OF HOBART.—FINANCES.

Year ended 30th June—	Capital Debt.	Revenue.		Expenditure.		
		Taxes, Dues, etc.	Total.	Interest and Sinking Fund.	Works, Services, etc.	Total.
	£	£	£	£	£	£
1937 ..	38,519	49,321	53,566	8,502	43,281	57,125

(ii) *Marine Board of Launceston.* (a) *General.* The Marine Board of Launceston consists of five wardens, three elected by the ratepayers of the city of Launceston and two by ratepayers of the municipalities within the Tamar District.

(b) *Finances.* The following table gives details for the year ended 30th June, 1937 :—

MARINE BOARD OF LAUNCESTON.—FINANCES.

Year ended 30th June—	Total Capital Debt.	Revenue.		Expenditure.		
		Taxes, Dues, etc.	Total.	Interest and Sinking Fund.	Works, Services, etc.	Total.
	£ -	£	£	£	£	£
1937..	243,352	52,216	58,322	20,789	16,781	58,322

(iii) *Marine Board of Burnie.* The length of the breakwater is 1,250 feet, with a depth up to 42 feet at low water, and a wharf alongside, 630 feet in length by 91 feet wide, with a depth at low water from 24 to 40 feet. There are two other timber wharves 600 feet and 400 feet long respectively. The receipts for the year ending 30th June, 1937, were £41,289, and the expenditure £28,598, including £16,138 interest on loans, etc.

§ 7. Fire Brigades.

1. *New South Wales.*—(i) *General.* Under the Fire Brigades Act, 1909–1927, a Board of Fire Commissioners consisting of eight members operates, and 128 fire districts have been constituted. The cost of maintenance of fire brigades is borne in proportions of quarter, quarter, and half by the Government, the municipalities, and the insurance companies concerned, but the expenditure must be so regulated that the proportion payable by the councils in a fire district shall not exceed the amount obtainable from $\frac{1}{4}$ d. in the £ rate on the unimproved capital value of rateable land in the fire district: provided that the Board, with the consent of the Minister, and at the special request of the councils of the municipalities or shires constituting or forming part of a fire district or a majority in number of such councils may, as to that district, exceed the limit above provided.

(ii) *Board of Fire Commissioners of New South Wales.* At the 31st December, 1937 the Board had under its control 79 fire stations in the Sydney fire district and 153 fire stations in the country fire districts. The Sydney fire district includes the City of Sydney and suburbs, and comprises a total area of 278 square miles. The revenue for the year 1937 was £393,202, made up as follows :—From the Government, £96,320; municipalities and shires, £96,320; fire insurance companies and firms, £102,640; and from other sources, £7,922. The disbursements for the year were £396,499.

2. *Victoria.*—(i) *General.* The Fire Brigades Act of 1928 provides for a Metropolitan Fire Brigades Board, and a Country Fire Brigades Board, each consisting of nine members, with local committees in country districts. The income of each Board is derived in equal proportions from the Treasury, the municipalities and insurance companies.

(ii) *Metropolitan Fire Brigade Board.* On the 30th June, 1937, the Board had under its control 43 stations. The total receipts for the year 1936–37 were £204,165, comprising contributions £159,596, receipts for services £26,288, and interest and sundries £18,281. The expenditure was £223,321, made up as follows :—Salaries (permanent staff) £115,868, interest and repayments of principal £17,591, and other expenditure £89,862. There was no loan expenditure during the year—the loan indebtedness at the end of the year being £178,434.

(iii) *Country Fire Brigades Board.* At 30th June, 1937, there were 120 municipal councils and 107 insurance companies included in the operations of the Act. The brigades are composed chiefly of volunteers, but in the large centres a few permanent station-keepers and partially-paid firemen are employed. Complete fire alarm systems are installed in 41 of the larger provincial cities and townships. There were 150 registered brigades at the end of June, 1937. For the year 1936-37 the revenue was £30,687 and the expenditure £30,640. There was no loan expenditure during the year, and at the close of the year the loan indebtedness was £47,576.

3. *Queensland.*—(i) *General.* The Acts of 1920-1931 made provision for the retention of existing fire districts, and for the constitution of new districts. For each district there must be a Fire Brigades Board consisting of seven members, and the cost of maintenance of each brigade is proportioned as follows :—The Treasurer two-sevenths, insurance companies three-sevenths, and local authorities two-sevenths. All volunteer fire brigades in a district must be registered.

(ii) *Fire Brigades Boards.* At the 30th June, 1937, there were fire brigades in 34 towns. The total revenue for the year 1936-37 was £123,631, received mainly from the following sources :—Government £21,640, local authorities £21,751, insurance companies £32,678, and loans (Government and other), £42,031. The total expenditure for the year was £128,543, the chief items being salaries and wages £54,948, buildings, repairs, etc., £38,871, plant, stores, etc., £17,229, and interest and redemption of loans, £9,124.

4. *South Australia.*—(i) *General.* The Fire Brigades Act 1936, provides for a Board of five members, and the expenses and maintenance of brigades are defrayed as to two-ninths by the Treasury, five-ninths by insurance companies, and two-ninths by the municipalities concerned. The contribution of the Treasury, however, is limited to £10,000 and if two-ninths of the expenses and maintenance exceeds this amount five-sevenths of the excess is contributed by the insurance companies and two-sevenths by the municipalities.

(ii) *Fire Brigades Board.* During the year 1937 the Woodville fire district with an area of 16½ square miles, a population of over 27,500 and a capital value of £6 million was taken over by the Board. A new station was also opened for the fire float at Port Adelaide. At the end of 1937 there were altogether 28 fire brigade stations. The total revenue for the year 1937 was £46,735.

5. *Western Australia.*—(i) *General.* Under the 1910 Act every municipal or road board district is constituted a fire district under the control of the Western Australian Fire Brigades Board. The income of the Board is derived as to two-eighths from Government, three-eighths from municipalities, and three-eighths from insurance companies.

(ii) *Western Australian Fire Brigades Board.* The whole of the brigades throughout the State are now controlled by the Western Australian Fire Brigades Board, and number 41. The revenue and expenditure for the year ended 30th September, 1937, were £59,447 and £59,551 respectively. The estimated value of land and buildings was £89,000 and of plant £38,100.

6. *Tasmania.*—(i) *General.* The municipal council of any municipality may, under the Act of 1920, petition the Governor to proclaim the municipality or any portion of it to be a fire district, each district to have a Board of five members. The expenses of each Board are borne in equal proportions by contributions from the Treasurer, the municipality concerned, and insurance companies insuring property within the district.

(ii) *Hobart Fire Brigade Board.* The revenue of the Board for the year 1937 amounted to £6,607.

CHAPTER XVI.

TRADE.

§ 1. Introductory.

Constitutional Powers of the Commonwealth in regard to Commerce.—The powers vested in the Commonwealth Parliament by the Commonwealth Constitution Act with respect to oversea trade and commerce will be found in Sub-section 51 (i) and sections 86 to 95 of the Act (see pp. 9 and 15 *ante*).

§ 2. Commonwealth Legislation affecting Oversea Trade.

1. General.—In previous issues of the Year Book brief particulars of the various Commonwealth Acts and amendments thereof affecting oversea trade have been given in chronological order. This information is not repeated in the present issue. Particulars of recent legislation relating to oversea trade are given hereunder.

2. Customs Tariffs.—The Customs Tariff 1933 which incorporates the Customs Act 1901–1930 repealed earlier Customs Tariff Acts. The Tariff Schedules in operation at 30th June, 1938, were the Customs Tariff 1933–1938 and Customs Tariff Proposal No. 2 of 5th May, 1938, also Customs Tariffs granting preferential rates of duty to Canada, New Zealand and the Territories of Papua and New Guinea.

The Customs Tariff 1921–1930 provided a British Preferential Tariff, an Intermediate Tariff and a General Tariff. The Customs Tariff 1933 made no provision for an Intermediate Tariff but this feature was restored by the Customs Tariff 1936.

“British Preferential Tariff” rates of duty apply to goods the produce or manufacture of the United Kingdom provided such goods comply with the laws and statutory regulations for the time being in force affecting the grant of British preference, and that the goods have been shipped in the United Kingdom to Australia and have not been transhipped, or, if transhipped, it is proved to the satisfaction of the Collector of Customs that the intended destination of the goods, when originally shipped from the United Kingdom, was Australia. The benefits of the British Preferential Tariff may be extended wholly or in part to any British non-self-governing colony, British protectorate or to certain territories governed under British mandate. The benefits of the British Preferential Tariff have been extended by separate Trade Agreements to certain goods the produce of the Dominions of Canada and New Zealand and to certain goods the produce of British non-self-governing colonies.

In submitting tariff schedules to Parliament on 20th March, 1936, the Minister for Trade and Customs said: “Another new feature of the schedules is the Intermediate Tariff. It has been re-introduced to provide a convenient avenue for expressing the level of duties which the Government propose should form the basis for trade treaties. The rates proposed under the protective items of the Intermediate Tariff express, in every case, a protective level for Australian industry as well as preserving the margins required under the Ottawa Agreement.” The Customs Tariff 1933–1938 provides that the Governor-General may from time to time by proclamation declare that the Intermediate Tariff shall apply from a date and time specified to goods specified in the proclamation which are the produce or manufacture of the British or foreign country specified in the proclamation. The Intermediate Tariff was brought into operation on 1st January, 1937, by Customs Proclamations Nos. 338, 342, 343 and 360, which granted intermediate rates of duty to specified goods the produce of “Proclaimed Countries.” The countries proclaimed include the United Kingdom, the Dominions and Colonies in respect of goods which do not comply with the conditions prescribed for the application of a lower tariff and most foreign countries under the terms entitling them to most favoured nation treatment. The United States of America is an important exception, while Japan is entitled to intermediate rates for eleven items only, comprising artificial silk and cotton piece goods.

The "General Tariff" applies to all importations excepting:—

- (a) Goods the produce or manufacture of the United Kingdom, shipped in the United Kingdom;
- (b) Goods the produce or manufacture of the following countries when admissible under the British Preferential Tariff or at a special rate of duty: Canada (*vide* Act No. 13 of 1931, Act No. 5 of 1934, and Acts No. 16 and No. 70 of 1936); New Zealand (*vide* Act No. 26 of 1933 as amended by Act No. 2 of 1934); Norfolk Island (*vide* Act No. 15 of 1913); Papua and New Guinea (*vide* Act No. 84 of 1936); and British non-self-governing Colonies, British Protectorates and certain Territories governed under British mandate.
- (c) Goods admitted under the provisions of the Intermediate Tariff.

The Customs Tariff 1933-1938 provides for duties on certain goods to be deferred. Where a deferred duty on any goods is provided in the Schedule, the Minister shall refer to the Tariff Board for inquiry and report the question whether the deferred duty should or should not operate on and after the date to which it has been deferred. The Board shall report whether the goods in respect of which the deferred duty is provided are being made or produced in Australia or will be so made or produced on, or immediately after, the date to which the duty has been deferred—(a) in reasonable quantities; (b) of satisfactory quality; and (c) at a reasonable price having regard, among other things, to the probable economic effect of the imposition of the deferred duty upon other industries concerned, and upon the community in general. Upon receipt of a report from the Tariff Board, the Minister may defer the duty further by notice published in the *Gazette*.

During the period 3rd April, 1930, to 23rd July, 1931, a special customs duty equal to 50 per cent. of the rate already in force was imposed on a number of items which were mostly of a luxury nature. The list of items affected was gradually reduced between 24th May, 1932, and 28th February, 1935, from which date the special customs duty ceased to operate.

By proclamation of 4th April, 1930, the importation of 78 classes of goods into the Commonwealth was prohibited, but these prohibitions were all removed during the period from 24th February to 31st August, 1932.

In pursuance of the trade diversion policy of the Commonwealth Government (see par. 8 of this section), an amendment of the Customs (Prohibited Imports) Regulations of 22nd May, 1936—Item 21—prohibited the import into Australia, except under special licence, of 84 classified groups of goods produced or manufactured in foreign countries. A list of the principal items affected was published in Official Year Book No. 30. Important modifications of the licensing system as applied to the 84 groups of goods referred to were announced on 7th December, 1937, by the Minister for Trade and Customs, who stated that in respect of goods not competitive with Australian industry, licences for importation would be granted irrespective of the country of origin. In respect of goods competitive with Australian industry the licensing system then in force would operate until duties adequate to the protection of the industries concerned had been determined. Tariff Schedules amending duties to give adequate protection to Australian industries established or extended during the currency of the licensing system were embodied in Customs and Excise Resolutions submitted to Parliament on 4th May, 1938, and the licensing restrictions ceased to have force from that date. The Acting Minister for Trade and Customs explained that the Schedules should be regarded as of a temporary nature until the industries could be inquired into and reported on by the Tariff Board.

Under Item 22 the import, except under special licence, is prohibited of motor vehicle chassis produced or manufactured in any country except the United Kingdom. Imports of chassis from the principal suppliers other than the United Kingdom are restricted to the same level of imports as for the twelve months ended 30th April, 1936.

From the same date, 22nd May, 1930, customs duties were increased on imports of certain items of cotton, artificial silk and silk piece goods and on motor chassis. The duties imposed on cotton and artificial silk piece goods were reduced as from 1st January, 1937.

A further amendment of the Customs (Prohibited Imports) Regulations of 3rd July, 1936 (Item 23 of the Second Schedule) prohibited except under special licence, the import into Australia of specified goods from any country or any colony or territory administered by that country which on or after 24th June, 1930, and on or before 26th June, 1936, had put into effect any ordinance, proclamation, or other instrument—

- (a) providing in effect that certain goods produced or manufactured in Australia shall not be imported into that country or any such colony or territory except with the permission of the competent Minister of State of that country; or
- (b) imposing on certain goods produced or manufactured in Australia import duties in addition to the import duties prescribed in the Import Tariff annexed to the Tariff Customs Law of that country.

The foregoing amendment to the Customs (Prohibited Imports) Regulations was repealed under the provisions of the trade agreement between the Governments of Japan and the Commonwealth of Australia which came into force on 1st January, 1937.

3. Primage Duty.—From 10th July, 1930, a primagé duty of 2½ per cent. *ad valorem* was imposed on all goods whether dutiable or not dutiable, in addition to the duties collected in accordance with the Customs Tariff 1921–1930, excepting bullion, specie, radium and certain special governmental and other imports. The rate of primage duty was subsequently increased to 4 per cent. as from 6th November, 1930.

A proclamation of 14th May, 1931, exempted certain aids to primary production, and on 11th July, 1931, a further amendment, in addition to extending the list of these goods and also exempting some minor imports from primage duty, provided for a rate of 4 per cent. *ad valorem* on a few other items, mainly aids to production, and increased the *ad valorem* rate of primage duty to 10 per cent. on all other articles imported. Amendments promulgated since 11th July, 1931, have greatly increased the list of goods exempt from primage duty.

The Customs Tariff (Primage Duties) Act 1934 imposed primage duty at rates of 4, 5, and 10 per cent. and provided for preferential treatment of certain goods admitted under the British Preferential Tariff. A proclamation of 12th December, 1934, exempted from primage duty goods the produce or manufacture of Fiji and a proclamation of 25th September, 1935, exempted from primage duty goods the produce or manufacture of the Territories of New Guinea and Papua. Under the Customs Tariff (New Zealand Preference) Act goods the produce or manufacture of New Zealand are exempt from primage duty. Similarly under the Norfolk Island Act 1913 goods the produce or manufacture of Norfolk Island are exempt from primage duty.

Customs proclamations, which came into force on 1st January, 1937, and later dates, provide in respect of specified tariff items exemptions from, and reduced rates of 4 and 5 per cent. primage duty on imports the produce or manufacture of "proclaimed countries". All countries whose goods are admissible to Australia under the intermediate customs tariff rank as proclaimed countries and include the United Kingdom, the Dominions and Colonies and most foreign countries. An important exception is the United States of America while Japan is a proclaimed country for eleven items only.

In 1936–37 the value of goods from the United Kingdom admitted under British Preferential Tariff rates was, in Australian currency, £A44,736,806 and the primage duty paid, £A1,161,308. This amount is £A1,224,660 less than the amount which would have been paid if certain goods had not been subject to preferential rates of primage duty.

4. Preferential Tariff.—(i) *British Preference.* The Commonwealth Tariff 1908 provided Preferential Tariff rates in favour of goods produced or manufactured in the United Kingdom. Subsequent amendments of the Tariff have extended the list of articles to which the preferential rates apply. The favourable treatment of the United Kingdom was again extended by Customs Tariff 1921 and when this Act was incorporated in Customs Tariff 1921–1930 further concessions were granted.

On the introduction of the preferential treatment of British goods by the Commonwealth Tariff, it was required that British material or labour should represent not less than one-fourth the value of such goods. From the 1st September, 1911, it was

required in regard to goods only partially manufactured in the United Kingdom, that the final process or processes of manufacture should have been performed in the United Kingdom and that the expenditure on material of British production and/or British labour should have been not less than one-fourth of the factory or works cost of the goods in their finished state.

These conditions were superseded by Customs Act 1934 as amended by Customs Act 1936 which repealed section 151A of the Principal Act and inserted in its stead :—

151A. (1.) For the purposes of any Customs Tariff (whether passed before or after the commencement of this section) which specifies in respect of any goods rates of duties of Customs lower than the Intermediate Tariff in respect of those goods, the following goods shall, subject to this section, be deemed to be the produce or manufacture of the United Kingdom :—

(a) Goods which are wholly produced or wholly manufactured in the United Kingdom from materials in one or more of the following classes—

(i) Materials wholly produced or wholly manufactured in the United Kingdom or in Australia.

(ii) Imported unmanufactured raw materials.

(iii) Imported manufactured raw materials as determined by the Minister.

(b) Goods of the factory or works cost of which not less than seventy-five per cent. is represented—

(i) by labour or material of the United Kingdom ; or

(ii) by labour or material of the United Kingdom and labour or material of Australia.

(c) Goods of a class or kind not commercially produced or manufactured in Australia and of the factory or works cost of which not less than twenty-five per cent. is represented—

(i) by labour or material of the United Kingdom ; or

(ii) by labour or material of the United Kingdom and labour or material of Australia.

(2.) Where in relation to any class or kind of goods to which paragraph (c) of the last preceding sub-section applies the Minister is satisfied that it is desirable that 50 per cent. should be substituted for the percentage specified, the Minister may so determine and thereupon that paragraph shall apply to that class or kind of goods as if 50 per cent. were so substituted accordingly.

(3.) No goods shall be deemed to be the produce or manufacture of the United Kingdom unless the final process of their production or manufacture was performed in the United Kingdom.

(4.) The provisions of this section shall apply *mutatis mutandis* in relation to goods which are imported from any country in respect of which a Customs Tariff within the meaning of sub-section (1.) of this section applies, in like manner as they apply in relation to goods imported from the United Kingdom.

Sub-sections 5, 6 and 8 to 10 of section 151A relate to certain powers of the Minister and the meaning of "Intermediate Tariff" and sub-section 7 to the meaning of "unmanufactured raw materials."

Section 151B of Customs Act 1936 prescribes the conditions relating to the application of the Intermediate Tariff.

The Customs Tariff 1933-1938 provides that the British Preferential Tariff rates of duty apply to goods or manufactures of the United Kingdom provided such goods comply with the laws and statutory regulations for the time being in force affecting the grant of British preference (see Section 151A of Customs Act 1901-1936). Customs Tariff 1933-1938 also provides that the benefits of the British Preferential Tariff may

be extended wholly or in part to any British non-self-governing colony, British Protectorate, or to certain territories governed under British mandate. The benefits of the British Preferential Tariff have also been extended by separate Trade Agreements to certain goods the produce of the Dominions of Canada and New Zealand.

At the Imperial Economic Conference held at Ottawa, Canada, during July and August, 1932, a trade agreement providing increased preference was made between the Government of the United Kingdom and the Government of the Commonwealth of Australia. The Tariff proposals embodying the terms of the trade agreement came into operation on the 14th October, 1932. An Act entitled the United Kingdom and Australia Trade Agreement Act 1932 approved the provisions of the trade agreement arising out of the Conference at Ottawa. Briefly stated the Commonwealth Government agrees (a) to invite Parliament to pass legislation making the tariff changes necessary to give effect to the preference formula set forth in the agreement; (b) that protection by tariffs shall be afforded only to those industries which are reasonably assured of sound opportunities for success; (c) that during the currency of the agreement the tariff shall be based on the principle that protective duties shall not exceed such a level as will give United Kingdom producers full opportunity of reasonable competition on the basis of the relative cost of economical and efficient production, provided that in the application of such principle special consideration may be given to the case of industries not fully established; (d) that the Australian Tariff Board review existing protective duties in accordance with the above principles, and after the receipt of the report of the Board the Parliament shall be invited to vary, wherever necessary, the tariff on goods of United Kingdom origin in such manner as to give effect to such principles; (e) that no new protective duty shall be imposed and no existing duty shall be increased on United Kingdom goods to an amount in excess of the recommendation of the Tariff tribunal; (f) that United Kingdom producers shall be entitled to full rights of audience before the Tariff Board when it has under consideration above-mentioned matters; (g) that, in so far as concerns goods the produce or manufacture of the United Kingdom, the Commonwealth Government undertake to (i) repeal the proclamation prohibiting the importation of certain goods; (ii) remove as soon as practicable the surcharges imposed by resolution introduced into the Parliament of Australia on 24th May, 1932; and (iii) to reduce or remove primage duty as soon as the finances of Australia will allow. The agreement shall remain in force for a period of five years and come into effect on 20th August, 1932 (subject to the necessary legislative or other action being taken).

The prohibitions and surcharges referred to in this agreement have been abolished and primage duty on a large number of items removed or reduced. The concessions granted by the Government of the United Kingdom under the terms of the Ottawa trade agreement on goods of Australian origin are set out briefly in par. 6 of this section. Further reference to this trade agreement will be found in the Appendix to Official Year Book, No. 26, 1933.

This agreement was reviewed by a Conference of United Kingdom and Australian Ministers in London in 1938, and on 20th July, 1938, a White Paper was presented to the British House of Commons embodying the results of the negotiations.

The full text of this White Paper is as follows:

WHITE PAPER ON UNITED KINGDOM—AUSTRALIA TRADE NEGOTIATIONS.

“United Kingdom and Australian Ministers have been engaged for some time in a review of various matters arising out of the Ottawa Agreement of 1932. Not only have the existing preferential arrangements between the two countries been examined, but Empire problems have, in a spirit of mutual sympathy and goodwill, been considered in their widest aspects, with a view to ensuring the maximum co-operation between the United Kingdom and Australia in their solution. The Ministers have reviewed broadly the principles which should in their opinion be regarded as a charter of the United Kingdom—Australia trade relations.

“The United Kingdom and Australia have a vital interest in each other. Australia in the United Kingdom—

- (a) as a great force for the bringing about and maintenance of international political and economic peace,
- (b) as an essential element in the defence of Australia's territory and trade,
- (c) as the greatest market for Australian exports of primary products;

the United Kingdom in Australia—

- (a) as a sister nation closely linked to the United Kingdom in matters of Empire defence,
- (b) as a country which given adequate population and full development of resources will become a great power in continued partnership with the United Kingdom,
- (c) as one of the greatest customers in the world for United Kingdom goods,
- (d) as the domicile of the largest amount of United Kingdom capital invested in any single overseas country and as a field for future United Kingdom investment.

“Both the United Kingdom and Australia have certain problems and requirements existing which each not only admits but is prepared to treat as the bases for trade relationships between the two countries. Australian Ministers recognize—

- (a) the necessity for the United Kingdom to safeguard and develop her own agriculture,
- (b) the position of the United Kingdom as a great international trade investor and shipowner,
- (c) the consequent necessity that the United Kingdom should maintain the position as a great overseas trader and in particular as an exporter of manufactured goods to the Empire and to foreign countries,
- (d) that these facts impose an upward limit upon the extent to which increased opportunities can be afforded to the Dominion producers in the United Kingdom market,
- (e) that any diminution of the total exports from the United Kingdom will tend to affect the capacity of the United Kingdom to purchase foodstuffs and raw materials from overseas suppliers and Australia.

United Kingdom Ministers recognize—

- (a) that in the interests of both countries and of the British Empire as a whole it is desirable for Australia to endeavour to bring about as soon as possible a substantial increase in her population,
- (b) that it is impossible to achieve this objective solely or principally by an expansion of Australian primary industries,
- (c) that there is therefore a necessity to combine with such expansion the sound and progressive development of Australian secondary industries.

“Both United Kingdom and Australian Ministers are strongly attached to the principle of preferential trade within the British Empire. At the same time they realize that several of the important facts above stated render it not only inevitable but desirable that both the United Kingdom and Australia should from time to time enter into trade agreements with foreign countries. In this way the two countries can assure their own full development and at the same time make an effective contribution to the expansion of International trade. To this end the United Kingdom and Australian Ministers have undertaken to co-operate in every practicable way with a view to acceptance of each other's co-operation in arriving at trade agreements with foreign countries.

“Certain immediate difficulties arise when an attempt is made to reconcile the desirability for Australia to expand her secondary industries to the maximum extent economically possible with that of the United Kingdom to maintain her exports and to secure for her exports a stable position in the Australian market. Some machinery for the adjustment of the immediate interests of the two countries was and is obviously desirable.

"In the Ottawa Agreement an attempt was made to meet these difficulties by the provisions of Articles 9 to 13 which have in practice worked fairly satisfactorily though they have been criticized from quite opposite points of view in the United Kingdom and Australia. Two possible methods of dealing with these Articles presented themselves to the Ministers. One was to endeavour to revise them so as to satisfy the requirements of both countries. This has so far proved impracticable. The other was to abolish the Articles altogether and to substitute for them a schedule of maximum rates of duty which should operate during the currency of the agreement. The principle of making trade treaties on the basis of fixing rates of duty is one which has been common to most modern international arrangements, but there may be special difficulties in applying it in the case of a young and developing country like Australia which also has a system of wage fixing tribunals and consequently fluctuations of industrial costs. Australian Ministers have, however, stated that the Australian Government will proceed forthwith to investigate the possibility of adopting such a system. They realize that it cannot be adopted without determining (subject of course to an exception in favour of the manufacture of defence materials, as to which no ruling could be laid down in advance) upon what lines the development of secondary industries will be followed by Australia during the next few years, but they believe if inquiries are put in hand for the purpose of determining the lines of a general plan of industrial development in Australia much good would result. Exports would to that extent be protected and the necessity for Articles which at present invoke criticism would disappear.

"In making such an inquiry the Commonwealth Government propose to have regard to (inter alia) such important factors as—

- (a) the necessity for increased Australian population,
- (b) the economics and future growth of primary production in Australia,
- (c) the necessity on national and economic grounds for a continued development of Australian secondary industries,
- (d) the defence needs of Australia,
- (e) the maintenance of United Kingdom—Australian trade by effective preference to United Kingdom in Australia and to Australia in the United Kingdom,
- (f) the need for new markets for Australian exports and for foreign trade arrangements.

"In the meantime and pending the decision of the Australian Government on this matter the present agreement will continue in force, though in order to avoid some difficulties which have presented themselves in the past the United Kingdom Ministers are prepared not to press their objection to interpretations now placed by the Australian Tariff Board upon Article 10, while the Australian Ministers have undertaken to make every effort to ensure that the Tariff Board's recommendations under Article 11 are made effective.

"During the course of conversations between Ministers much discussion took place with regard to the marketing of primary produce in the United Kingdom. Australian Ministers recognize the rights of United Kingdom agriculture in accordance with the principle that the home producer is entitled to first consideration in the home market. They also recognize that the circumstances above indicated impose an upward limit upon the extent to which increased opportunities can be afforded to Dominion producers in the United Kingdom market. The United Kingdom Ministers in their turn recognize the principle that Empire producers are entitled to second consideration in the United Kingdom market and that, subject to the vital interests of the United Kingdom in its agriculture and overseas trade, the necessity of maintaining remunerative prices while safeguarding the interests of the consumer and the absorptive capacity of the United Kingdom market, an extended market should, as far as practicable, be afforded in the United Kingdom for their products. It was felt by both United Kingdom and Australian Ministers that, in the present state of trade, the interests of all parties could best be

served by means of orderly marketing secured by collective action on the part of Empire producers organizations in co-operation with corresponding bodies in other countries in respect of particular commodities. A similar method has already been adopted in regard to beef by the creation of the Empire Beef Council and the International Beef Conference, and in the opinion of the Ministers great benefit to both home and Dominion producers can be secured by co-operation of this character in relation to other commodities."

On the basis of the imports during 1913 the preferential provisions of the Tariff of 1908-1911 covered 65 per cent. of the imports of merchandise of United Kingdom origin, the margin of preference being equal to 5 per cent. of the value of the goods. On the basis of the imports during 1936-37 the Customs Tariff 1933-1938 extended the application of the Preferential Tariff rates to 91.6 per cent. of the imports from the United Kingdom, and at the same time increased the margin of preference to 17.6 per cent. *ad valorem*. These percentages relate to all imports on which preference was granted, whether dutiable or free under the preferential provisions. With regard to imports on which preference was granted and which were dutiable under both the Preferential and General Tariffs, the average equivalent *ad valorem* rate of duty paid in 1936-37 under the Customs Tariff 1933-1938 on goods of United Kingdom origin was about 16.4 per cent., whereas the same goods under the General Tariff rates would have been called upon to pay an average rate of about 38.1 per cent.

An application of the Customs Tariff 1933-1938 to the total imports of £A48,865,237 (including outside packages) from the United Kingdom entered for home consumption during the year 1936-37 shows that the value of the goods of United Kingdom origin which participated in the preferential provisions of the Tariff was £A44,736,806, upon which duty to the amount of £A4,070,882 was collected. Under the General Tariff the same goods would have paid £A11,808,863 duty or £A7,887,081 more than was paid at preferential rates, representing an additional duty of 17.6 per cent. on the value of the goods. The principal classes which benefited under the Preferential Tariff and the additional duty that would have been collected under the General Tariff during the year 1936-37 were textiles, £2,202,245; metals and metal manufactures, £2,084,701; machines and machinery, £1,077,522; paper, £381,365; drugs, chemicals, etc., £349,649; earthenware, glass, etc., £241,483; apparel, £204,751; manufactured fibres, £105,763; optical, surgical and scientific instruments, £101,037; stationery and paper manufactures, £92,359; and spirituous liquors, £89,680.

If a preferential tariff had not been in operation in 1936-37 £A7,887,081 additional customs duty would have been collected under the general tariff on United Kingdom goods imported at preferential rates. It would be improper, however, to speak of this sum as the "value" of preference to the United Kingdom as some of the preferential goods would have come from the United Kingdom without preference.

The margin of preference granted by the preferential tariff has been increased to some extent by the operation of the Customs Tariff (Exchange Adjustment) Act 1933-1936. This Act provides for deductions of duty consequent on the depreciation in the value of Australian currency in relation to the currencies of other countries but is limited in its application to protected goods admitted under the British preferential tariff. On goods of United Kingdom origin subject to exchange adjustment in 1934-35 the deductions amounted to £A460,720 and reduced the duty from £A3,804,325 to £A3,343,506. The total amount deducted in later years cannot be stated as the Tariff Board since the end of 1934 has recommended "net" rates of duty after making due allowance for exchange adjustment.

The value of goods from countries other than the United Kingdom which were adversely affected by the preferential provisions of the Tariff amounted to £A23,923,717, and the duty collected thereon was £A7,340,345, or £A4,922,240 more than would have been paid under the British Preferential Tariff Rates.

The following table shows the effect of the Preferential provisions of the Customs Tariff on imports of goods affected favourably or adversely by the British Preferential Tariff during the years 1934-35 to 1936-37:—

EFFECT OF THE PREFERENTIAL PROVISIONS OF THE CUSTOMS TARIFF.
IMPORTS OF GOODS AFFECTED FAVOURABLY OR ADVERSELY BY THE BRITISH PREFERENTIAL TARIFF.

Particulars.	United Kingdom.			Other Countries.(a)		
	1934-35.	1935-36.	1936-37.	1934-35.	1935-36.	1936-37.
GOODS OF A KIND WHICH WERE "FREE", IF FROM UNITED KINGDOM.						
Value of goods cleared for consumption ..	£ 16,249,321	19,189,951	20,317,326	9,804,298	12,638,770	9,676,670
Amount of Duty collected thereon ..	£ ..	..	..	1,621,495	2,013,394	1,251,871
Average <i>ad valorem</i> rate of Duty collected ..	% ..	..	..	16.5	15.9	12.9
Duty which would have been collected under General Tariff rates ..	£ 2,270,359	2,728,538	2,592,120	..	..	..
Average <i>ad valorem</i> rate of Duty which would have been collected under General Tariff rates ..	% 14.0	14.2	12.8	..	..	..

GOODS OF A KIND WHICH WERE "DUTIABLE", IF FROM UNITED KINGDOM.

Value of goods cleared for consumption ..	£ 19,093,908	19,889,895	24,419,570	14,404,275	15,990,176	14,247,041
Amount of Duty collected thereon ..	£ 3,343,596b	3,662,920b	4,010,882b	5,326,147	6,092,310	6,097,474
Average <i>ad valorem</i> rate of Duty collected ..	% 17.5	18.4	16.4	37.0	38.1	42.8
Duty which would have been collected on United Kingdom goods under General Tariff rates ..	£ 6,809,612	7,445,011	9,306,743	..	..	..
Average <i>ad valorem</i> rate of Duty which would have been collected under General Tariff rates ..	% 35.7	37.4	38.1	..	..	..
Duty which would have been collected on goods of Other Countries under British Preferential Tariff ..	£ ..	..	..	2,833,030b	3,023,170b	2,427,105b
Average <i>ad valorem</i> rate of Duty which would have been collected under British Preferential Tariff ..	% ..	..	..	19.7	18.9	17.0
Amount of Rebate on United Kingdom goods as against General Tariff rates ..	£ 3,466,016b	3,782,091b	5,295,861b	..	..	..
Average <i>ad valorem</i> rate of Rebate on United Kingdom goods ..	% 18.2	19.0	21.7	..	..	..
Amount of Surcharge on goods from Other Countries as against British Preferential Tariff rates ..	£ ..	..	..	2,493,117b	3,069,140b	3,670,360b
Average <i>ad valorem</i> rate of Surcharge on goods of Other Countries ..	% ..	..	..	17.3	19.2	25.8

(a) Goods cleared under "General Tariff." (b) In computing this amount, account has been taken of the effect of the Exchange Adjustment Act on the margin of British Preference.

NOTE.—For the purpose of the above analysis the value of imports is stated in Australian currency.

EFFECT OF THE PREFERENTIAL PROVISIONS OF THE CUSTOMS
TARIFF—*continued*.

Particulars.	United Kingdom.			Other Countries.(a)		
	1934-35.	1935-36.	1936-37.	1934-35.	1935-36.	1936-37.
TOTAL GOODS—"FREE" AND "DUTIABLE", AFFECTED BY THE BRITISH PREFERENTIAL TARIFF.						
Value of goods cleared for consumption	£ 35,343,229	39,079,846	44,736,896	24,208,573	28,628,946	23,923,717
Amount of duty collected thereon	£ 3,343,596b	3,662,920b	4,010,882b	6,947,642	8,105,704	7,349,345
Average <i>ad valorem</i> rate of Duty collected	% 9.5	9.3	9.0	28.7	28.3	30.7
Duty which would have been collected on United Kingdom goods under General Tariff rates ..	£ 9,079,971	10,173,549	11,898,863	..	..	..
Average <i>ad valorem</i> rate of Duty which would have been collected under General Tariff rates ..	% 25.7	26.0	26.6	..	..	..
Duty which would have been collected on goods of Other Countries under British Preferential Tariff ..	£ ..	..	..	2,833,030b	3,023,170b	2,427,105b
Average <i>ad valorem</i> rate of Duty which would have been collected under British Preferential Tariff ..	% ..	..	..	11.7	10.6	10.1
Amount of Rebate on United Kingdom goods as against General Tariff rates	£ 5,736,375b	6,510,629b	7,887,981b	..	..	..
Average <i>ad valorem</i> rate of Rebate on United Kingdom goods	% 16.2	16.7	17.0	..	..	..
Amount of Surcharge on goods from other Countries as against British Preferential rates ..	£ ..	..	..	4,114,612b	5,082,534b	4,922,240b
Average <i>ad valorem</i> rate of Surcharge on goods of Other Countries	% ..	..	..	17.0	17.7	20.6

(a) Goods cleared under "General Tariff." (b) In computing this amount, account has been taken of the effect of the Exchange Adjustment Act on the margin of British Preference.

NOTE.—For the purpose of the above analysis the value of imports is stated in Australian currency.

(ii) *Intermediate Tariff Preference.* The Intermediate Tariff came into operation on 1st January, 1937, and during the six months ended 30th June, 1937 was applicable wholly or in part to about 130 tariff items. In the period mentioned goods from "Proclaimed Countries" (i.e. Foreign countries entitled to most favoured nation treatment) cleared at intermediate rates of duty were valued at £A2,124,718 on which £A682,036 duty was collected. Under the General Tariff the same goods would have paid £A1,223,047 duty or £A541,011 more than was paid at intermediate rates, representing an additional duty of 25.6 per cent. on the value of the goods. At British preferential rates of duty the same goods would have paid £A274,554, or £A407,482 less than was paid at intermediate rates, a reduction equivalent to an *ad valorem* duty of 19.2 per cent.

(iii) *Exchange Adjustment.* The Customs Tariff (Exchange Adjustment) Act 1933-1936 provides for adjustments in Duties of Customs, consequent upon depreciation in the value of Australian currency in relation to the currencies of countries, to goods on which the British Preferential Tariff applies. This Act came into operation on 5th October, 1933, but subsequent amendments have extended the list of items affected. The application of Section 5 of the Act is explained hereunder:—

The deduction to be made from duty in respect of protected goods (covered by items) specified in the schedule to the Act and admissible under the British Preferential Tariff

on account of the depreciation of Australian currency in relation to the currency of the British country exporting the protected goods to Australia will depend on—

- (a) Whether the extent of depreciation is not less than $16\frac{2}{3}$ per cent.; or
- (b) Whether the extent of depreciation is not less than 11 1-9 per cent., and less than $16\frac{2}{3}$ per cent.

If (a) applies, the deduction from the amount of duty will be—(i) one-fourth of the amount of duty; or (ii) $12\frac{1}{2}$ per cent. ($\frac{1}{8}$) of the value for duty, whichever is the less:

If (b) applies, the deduction will be (i) one-eighth of the amount of duty; or (ii) $6\frac{1}{4}$ per cent. of the value for duty, whichever is the less. The telegraphic transfer (buying) rate shall determine the extent of depreciation of Australian currency.

Prior to 1933-34 the Tariff Board had recommended rates of duty as though exchange was at par, but early in the year mentioned the Board decided to change the basis of its recommendations and has since shown its findings under the following headings:—

- (a) The rates which would prove reasonable and adequate under existing conditions of exchange.
- (b) An estimate as closely as can be made of the rates which would be reasonable and adequate if exchange suddenly reverted to par.
- (c) The scale of adjustment necessary to meet conditions of exchange between parity and the present adverse rate of 25 per cent.

In tariff proposals introduced on 6th December, 1934 and later, the new basis has been adopted in fixing rates of duty on certain items in accordance with the Board's recommendations as set out in (a) with provision for the adjustment of rates of duty as set out in (c). With respect to such items the deductions under the provisions of the Exchange Adjustment Act will cease to apply.

(iv) *Papua and New Guinea Preference.* The Customs Tariff (Papua and New Guinea Preference) 1936 which repealed the Act of 1934 provides for Customs Preference on goods the produce of Papua and on goods the produce of the Territory of New Guinea. Imports into Australia direct from the Territory of Papua or the Territory of New Guinea, of such of the goods specified in the schedule to the Act as were produced in the Territory from which they were imported, shall, notwithstanding anything contained in the Customs Tariff 1933-1936 be free of duty. The goods specified in the schedule to the Customs Tariff (Papua and New Guinea Preference) 1936 are coffee, dried lychee fruit, various native fresh fruits, edible fungi, green and dry ginger, coconuts, Rangoon beans, kapok and sesame seeds, areca nuts, cocoa beans, massoi oil, nuts (edible), sago, tapioca, spices, vanilla beans and gums. Total imports from Papua during 1936-37 amounted to £A352,188, imports of goods entitled to preference to £A70,701, and duties remitted to £A48,011. Total imports from the Territory of New Guinea during 1936-37 amounted to £A2,171,741 including gold £A1,920,332, imports of goods entitled to preference to £A70,885, and the duties remitted to £A40,849.

5. *Reciprocal Tariffs.*—(i) *General.* The Customs Tariff of 1921 introduced a new feature into Australian Tariffs in the form of an Intermediate Tariff. No provision was made in the Customs Tariffs 1933 for an intermediate tariff but in the Customs Tariff 1936 this feature was restored. The purpose of the intermediate tariff is referred to in § 2 par. 2.

The trade agreement signed at the Imperial Economic Conference, 1932, held at Ottawa, Canada, on behalf of the Government of the United Kingdom and of the Government of the Commonwealth of Australia materially altered the existing conditions of preference. The agreement provides special preferential trade conditions between the Commonwealth of Australia and the United Kingdom and certain of its dependencies. Customs Tariff 1933 embodied the main provisions of the Ottawa Agreement, and imposed duties of customs under two headings—British Preferential Tariff and General Tariff. No provision was made for an Intermediate Tariff in the above-mentioned Act. The terms of the agreement conceded by the Commonwealth Government are briefly stated in § 2 par. 4 and the concessions granted by the Government of the United Kingdom on goods of Australian origin are set out in § 2 par. 5 of this chapter. A review of the trade agreement will be found in the Appendix to Official Year Book No. 26, 1933.

(ii) *Union of South Africa.* The Commonwealth Customs Tariff (South African Preference) Act 1906 and subsequent amending Acts which provided preferential rates of duty upon goods produced within the South African Customs Union were repealed from 1st July, 1926, by the Customs Tariff 1926.

A new trade agreement took effect from 1st July 1935. This agreement provides that the products of the Union of South Africa or the mandated territory of South-West Africa entering Australia and the products of Australia entering the Union of South Africa or the mandated territory of South-West Africa shall be subject to customs duties not higher than those imposed by the importing country on like products from the most favoured foreign nation. A reciprocal tariff arrangement under which products of Mozambique are admitted duty free to the Union of South Africa is exempt from the agreement.

(iii) *Dominion of New Zealand.* The Customs Tariff (New Zealand Preference) Act 1933, which came into force on 1st December, 1933, repealed earlier Acts and provides that duties on all goods specified in the schedule to the Act shall be at the rates indicated therein, and that all goods other than those provided for in the schedule shall be subject to the rates in force under the British Preferential Tariff. An amendment to this Act in 1934 provides that, where the rate of duty upon any class of goods under the New Zealand British Preferential Tariff is less than that operating in Australia under the British Preferential rate, upon request by the New Zealand Government such goods may, after proclamation, be admitted at the lower rate. The rates of duty on goods re-exported from New Zealand (not being goods the produce or manufacture of New Zealand) and which are imported into Australia, and upon which if they had been imported into Australia direct from the country of origin would have been subject to the rates of duty under the British Preferential Tariff, shall be the rates of duty in force under that tariff.

The Act provides also that films produced in New Zealand by or for the Government of New Zealand for publicity purposes shall be admitted free of duty, also that cocoa beans the produce of Western Samoa shall not be subject to any higher duties than those paid on cocoa beans the produce of any British non-self-governing Colony or Protectorate or any Territory under British mandate. Nothing in the Act shall apply to goods being the produce of Cook Islands.

Goods the produce or manufacture of the Dominion of New Zealand are exempt from primage duty.

The conditions of preference in the Act provide that goods shall be deemed to be the produce or manufacture of New Zealand if they conform to the laws and regulations in force in Australia which apply to such goods when imported under the British Preferential Tariff (*vide* section 151A of Customs Act 1901-1938) except that goods not wholly produced or manufactured in New Zealand need not contain more than 50 per cent. of New Zealand labour and/or material in their factory or works cost, instead of 75 per cent. under the conditions of the United Kingdom preference.

Of the total imports of £A2,220,996 from New Zealand during 1936-37 it is estimated that goods otherwise dutiable amounting in value to £A613,295 were admitted free under the provisions of the Preferential Tariff and the duty thus remitted was £A180,505. In addition, goods valued at £A71,038 were admitted under the preferential rates of duty, the duty remitted on such goods being £A14,285. The total of the duties remitted on the import of New Zealand goods was thus £A200,850, representing a margin of preference of 30.6 per cent. on the value of the goods entitled to preference. The principal items which benefited under the preferential provisions were undressed timber, valued at £A247,232, and fish, £A223,282, the amounts of duty remitted being £A124,396 and £A43,852 respectively.

(iv) *Dominion of Canada.* A reciprocal trade agreement between Canada and Australia which came into force on 1st October, 1925, was superseded by the Customs Tariff (Canadian Preference) Act of 1931, which reaffirmed the principle of granting preferences for the mutual advantage of the two countries and extended preferential conditions. Other tariff legislation in force is the Customs Tariff (Canadian Preference) Act No. 5 of 1934 as amended by Nos. 10 and 70 of 1936 and No. 5 of 1938. The commodities

on which Canada grants preferential rates of duty to Australia are: Butter, brandy, champagne, cheese, currants, eggs, eucalyptus oil, fresh apricots, pears, quinces, nectarines, grapes, oranges and passion fruit, dried prunes, apricots, nectarines, pears and peaches, fruit pulp, fruits in cans, gelatine, hops, rice (uncleaned), meat (fresh and canned), peanuts, raisins, sugar, tallow, veneers and wine. Australia's preferential duties apply to the following Canadian imports:—Carbide of calcium, cash registers, corsets, fish, gloves, goloshes and rubber sand boots, etc., iron and steel tubes or pipes, printing machinery, barbed wire, paper (printing, typewriting and writing), timber, typewriters, vacuum cleaners and vehicles—motor chassis (unassembled and assembled)—and vehicle parts but not including bodies, gears, rubber tyres and tubes, storage batteries, shock absorbers, bumper bars, sparking plugs and springs.

During 1936-37 the imports from Canada amounted in Australian currency to £A8,433,399 and imports of Canadian origin entitled to preference were valued at £A7,155,574, the principal items being printing paper, £A1,760,871; motor chassis and parts, £A1,747,504; timber, £A994,054; fish, £A505,027; and piece goods, £A313,315. The duty on the total imports of Canadian origin entitled to preference would have been £A3,117,809 under the General Tariff, but by the preferential provisions this was reduced by £A1,888,741, or by 26.4 per cent. on the value of the imports concerned.

Australian exports to Canada subject to preference amounted to approximately £A1,314,000, the principal items being dried fruits, £A577,334; sugar, £A450,918; fruits, preserved, £A87,099; tallow, £A82,234; and wine, £A25,210.

6. **Preferential Tariff of the United Kingdom.**—The post-war Tariff of the United Kingdom provides Preferential Customs rates on certain goods where it is shown to the satisfaction of the Commissioners of Customs and Excise that such goods have been consigned from and grown, produced, or manufactured in the British Empire. Manufactured articles generally are not entitled to the preferential rates unless a specified percentage of their value is the result of labour within the British Empire. The principal items of interest to Australia which are accorded preferential treatment under this Tariff are:—Fruits, dried and preserved; jam; fruit pulp; preserved milk; wine; and brandy. In the Budget submitted to the House of Commons during June, 1925, clauses dealing with increased Imperial preference on Empire-grown tobacco, preserved and dried fruits, jams and jellies, spirits, wine, sugar and hops were proposed and adopted. The new rates of duty took effect on 1st July, 1925, excepting that relating to hops, which came into operation on 16th August, 1925.

Conditions of preference to goods of Australian origin imported into the United Kingdom were revised in the trade agreement signed at the Ottawa Imperial Economic Conference. Increased preference was granted and the list of commodities entitled to preference was extended. This agreement provides that for eggs, poultry, butter, cheese and other milk products free entry for produce of Australia will be continued for three years certain. Article 2 of the agreement provides that the British Government will invite Parliament to pass the legislation necessary to impose on foreign goods specified in Schedule B, the duties of customs specified therein in place of the duties (if any) now leviable. The goods and duties in Schedule B are as follows:—Wheat in grain, 2s. per quarter; butter, 15s. per cwt.; cheese, 15 per cent. *ad valorem*; apples, raw, 4s. 6d. per cwt.; pears, raw, 4s. 6d. per cwt.; apples, canned, 3s. 6d. per cwt., in addition to duty in respect of sugar content; other canned fruits, 15 per cent. *ad valorem*, in addition to duty in respect of sugar content; dried fruits, now dutiable at 7s., 10s. 6d. per cwt.; eggs in shell, (a) not exceeding 14 lb. per great 100, 1s. per great 100; (b) over 14 lb. but not exceeding 17 lb., 1s. 6d. per great 100; (c) over 17 lb., 1s. 6d. per great 100; condensed milk, whole, sweetened, 5s. per cwt., in addition to duty in respect of sugar content; condensed milk, whole, not sweetened, 6s. per cwt.; milk powder and other preserved milk, not sweetened, 6s. per cwt.; honey, 7s. per cwt.; copper, unwrought, whether refined or not, in ingots, bars, etc., 2d. per lb.; oranges, raw, 3s. 6d. per cwt. from 1st April to 30th November; grape fruit, raw, 5s. per cwt., from 1st April to 30th November, and grapes (other than hothouse) 1½d. per lb. from 1st February to 30th June. Schedule C provides that the margin of preference on wine not exceeding 27 degrees of proof spirit shall be 2s. per gallon.

The British Government undertake that the general *ad valorem* duty of 10 per cent. imposed by Section 1 of the Import Duties Act 1932 on the following foreign goods shall not be reduced except with the consent of the Commonwealth Government;—Leather, tallow, canned meat, zinc, lead, barley, wheaten flour, macaroni, dried peas, dressed poultry, casein, eucalyptus oil, meat extracts and essences, copra, sugar of milk, sausage casings, wattle bark, asbestos and dried fruits other than currants.

The duties provided on foreign wheat in grain, copper, lead and zinc are conditional on Empire producers continuing to offer these commodities on first sale in the United Kingdom at prices not exceeding the world price.

During the Calendar year 1936 merchandise of Australian origin imported into United Kingdom amounted to £61,435,000. Of this total approximately £31,730,000 represented goods which received preferential tariff treatment over similar goods from foreign countries. If these goods had been subject to the duties imposed on foreign goods it is estimated that they would have paid approximately £5,534,000 more in duty. This represents a rebate of approximately 17.4 per cent. on the value of imports receiving preferential treatment. The main items receiving preference and the amount of the rebates were:—Wheat, £8,625,000 (rebate, £533,000); butter, £7,672,000 (rebate, £1,271,000); sugar, £2,678,000 (rebate, £1,220,000); apples, fresh, £1,871,000 (rebate, £370,000); eggs in shell, £947,000 (rebate, £123,000); raisins, £855,000 (rebate, £225,000); and wine, £592,000 (rebate, £703,000). The above figures for imports have been obtained from the *Annual Statement of the Trade of the United Kingdom 1936*, and the rebate granted has been estimated from rates of duty shown in the Import Duties Act 1932, Ottawa Agreements Act 1932 and the other enactments mentioned above.

The declaration by the British Government (Schedule H of the agreement) provides for the regulation of foreign meat into the United Kingdom and undertakes that no restriction will be placed upon the importation of any meat from Australia during the period (January 1933 to June 1934) named in the "agreed programme" which is set out in Schedule H.

The views of the Government of the United Kingdom on the imports of meat into the United Kingdom were the subject of a paper presented to the House of Representatives in April, 1935. In a memorandum on "The Live stock Situation" issued as a White Paper in July, 1934, the United Kingdom Government called attention to the very serious decline which had taken place in 1932, 1933 and the first half of 1934, in the prices of fat and store cattle in the United Kingdom market. The decline was attributed in the main to the disproportionate fall of agricultural prices as the result of the World depression and the effect on the meat industry of the expansion of overseas production which in some cases was stimulated by the payment of subsidies. The United Kingdom Government added that it was clearly impossible for that Government to acquiesce in a situation which threatened ruin to the United Kingdom live stock industry and explained that the choice lay between—

- (a) a drastic reduction of imports to the point necessary to sustain prices of United Kingdom live stock at a remunerative figure; or
- (b) the introduction in agreement with overseas countries of a levy upon imports the proceeds of which would be available for the assistance of the home industry.

In the latter case, it was explained, the quantity of imports might either be left entirely free or subjected to such moderate regulation as might be thought necessary to prevent the market from breaking altogether. It was further pointed out that, without the consent of the countries concerned, no duty could be imposed on Dominion meat before August, 1937, or on Argentine meat before November, 1936. Failing agreement on the payment of a levy on meat imports the United Kingdom Government would have no alternative but to take steps to regulate, during the currency of existing agreements, the quantity of imports to whatever extent was necessary to restore livestock prices to a remunerative level. In summing up the position the United Kingdom Government stated that it was the firm intention of His Majesty's Government in the United Kingdom to safeguard the position of the United Kingdom live-stock industry.

The arrangements with the United Kingdom provide for importations of Australian meat regulated in accordance with the absorptive capacity of the United Kingdom market. Australian meat importations into the United Kingdom during the last four years as compared with the Ottawa agreement year (1931-32) have been as follows:—

				Chilled Beef.	Frozen Beef and Veal.	Frozen Mutton and Lamb.	Pork.
				Cwt.	Cwt.	Cwt.	Cwt.
1931-32	..	..	..	Nil	1,124,000	1,488,000	Nil
1934	..	..	..	55,000	1,599,000	1,627,000	82,000
1935	..	..	..	228,000	1,468,000	1,784,000	147,000
1936	..	..	..	296,000	1,512,000	1,499,000	233,000
1937	..	..	..	458,000	1,830,000	1,883,000	234,000

In this connexion it will be of interest to compare the terms of the United Kingdom-Argentina Trade Agreement which took effect from 20th November, 1936. This Agreement provides for "minimum annual quantities" of Argentina meat to be imported into the United Kingdom as follows:—Chilled beef for year 1937 not less than quantity imported in 1935 reduced by 138,700 cwt. For each of the years 1938 and 1939 not less than the quantity permitted in the preceding year reduced by 138,700 cwt. provided that the 1939 quantity shall be not less than 6,590,000 cwt. Frozen beef 124,600 cwt., pork 186,800 cwt., and canned beef 605,600 cwt. annually. Mutton and lamb for year 1937, 886,000 cwt. and for 1938, 797,400 cwt. In addition, customs duty has been imposed as follows:—Chilled beef $\frac{3}{4}$ d. per lb.; frozen beef $\frac{3}{4}$ d. per lb.; canned beef (excluding tongues) 20 per cent., and tongues 30 per cent. ad valorem; pork, mutton and lamb, free. If in any period Argentina is unable to supply the minimum quantities specified the United Kingdom Government may re-allocate the shortage among other countries. The agreement will remain in force until 31st December, 1939, and thereafter until terminated by six months notice.

7. Trade Agreements.—(i) *Belgium*. An agreement executed on 19th November, 1934, between the Governments of Belgium and the Commonwealth of Australia permitted Belgium to supply a specified proportion of Australian requirements of plain, clear sheet glass in return for which the Belgian Government waived all restrictions upon the importation of Australian meat and agreed not to enforce an embargo on Australian cereals. This agreement continued in force until 1st January, 1937, when a new agreement came into operation. The quota arrangement with respect to Belgian glass is a feature of the new agreement which also provides for—

- (1) Reciprocal most favoured nation treatment.
- (2) The grant of intermediate tariff to Belgium in respect of 53 sub-items; and undertaking not to increase the duty on seven non-protective items; primage concessions on a number of items; remission of the revenue duty on outside packages operating on goods covered by nine items; an undertaking to refer a limited number of items to the Tariff Board for inquiry and report; and reclassification of certain sheet glass not manufactured in Australia.
- (3) Consolidation of the present duty free entry into Belgium of Australian wool, sheepskins, hides and tallow, and consolidation of the duties on fresh apples and pears.
- (4) An undertaking by Belgium that Australian barley, wheat and frozen beef will not be prohibited.

The agreement is of indefinite duration and will remain in force until terminated by six months' notice from either Government.

(ii) *Czechoslovakia*. A trade agreement concluded between the Governments of Czechoslovakia and the Commonwealth of Australia came into force on 1st January, 1937. The actual commitments of the Commonwealth Government may be summarized as follows :—

- (1) The grant to Czechoslovakia of most favoured nation treatment covering import duties and charges on the importation into Australia of articles from Czechoslovakia.
- (2) The grant of an intermediate tariff rate on 44 items.
- (3) The continuance of by-law admission of certain steel which is of a type not manufactured in Australia.
- (4) Remission of primage duty on a limited number of items.
- (5) An undertaking that prohibitions and restrictions shall not be discriminatory.
- (6) An undertaking to accord equitable treatment to Czechoslovakian goods should quantitative regulation of imports be maintained or adopted.

The undertakings given in paragraphs 1, 5 and 6 are reciprocal in their application. Czechoslovakia on its part undertakes to grant duty free admission to wool, sheepskins, rabbit skins and pearlshell; to consolidate the existing low duties on lead; and to grant a reduction of duty on apples.

The agreement is for one year but will continue thereafter until terminated by three months' notice of denunciation.*

(iii) *France*. A trade agreement between the Governments of France and the Commonwealth of Australia came into force on 1st January, 1937. Briefly stated the concessions granted to France by the Commonwealth Government are as follows :—

- (1) A general pledge to accord France most favoured nation treatment with respect to customs duties by according to French products tariff treatment at least as favourable as that accorded to the products of the most favoured foreign country.
- (2) The grant of intermediate tariff rates on 96 tariff items or sub-items.
- (3) A reduction of primage duties on 72 tariff items or sub-items.
- (4) An undertaking to refer 16 items to the Tariff Board for inquiry and report.
- (5) A consolidation for the minimum period of the agreement—one year—of the duties on high-power insulators for use in the manufacture of electric switch-gear and transformers.

In return for the concessions granted by Australia, the French Government has agreed to accord the following benefits to Australian exports :—

- (1) The grant of the French minimum tariff duties on 20 items. Wool, hides and skins, wheat, barley, apples, meat, and metals are included in the list.
- (2) The abolition of the special retaliatory duties of 200 per cent. of the French maximum tariff on butter and wheat.
- (3) The abolition of exchange surtax of 15 per cent. *ad valorem* on all Australian goods.
- (4) The reduction of the import tax on Australian products to a flat rate of 2 per cent. This tax which is similar to primage formerly ranged from 2 per cent. to 6 per cent.

The agreement has been made for one year but will continue thereafter until terminated by two months' notice from either Government.

* This agreement remains unaffected by recent political events in this country.

While French quota restrictions remain, the grant of French minimum tariff duties on 20 items does not necessarily mean that the way is open for large imports of those commodities to France. For some items the French Government has been unable to grant quotas but has undertaken to examine with goodwill any request from the Commonwealth Government for a percentage of the global quota. Australian barley and apples are exceptions, the annual quota for barley having been fixed at 20,000 quintals, and for apples at 64,500 bushel cases.

(iv) *Japan.* A trade arrangement entered into between the Governments of Japan and the Commonwealth of Australia operated from 1st January, 1937 to 30th June, 1938. Under this arrangement the Commonwealth Government granted intermediate tariff rates of duty to imports of Japanese artificial silk and cotton piece goods comprising eleven tariff items from which primage duty was also removed. The maximum quantity to be imported was fixed at 102,500,000 square yards per annum, divided equally between artificial silk and cotton. In return, the Government of Japan undertook to issue permits for the import during the currency of the arrangement of 800,000 bales of Australian wool, or at the rate of 533,000 bales per annum. In accordance with the terms of the arrangement all prohibitions and super duties which had been imposed by the two Governments in 1936 were removed as from 1st January, 1937.

A new arrangement effected by an exchange of letters between representatives of the two Governments came into force on 1st July, 1938, and has a currency of one year. Under this arrangement Japan will permit the import of such quantity of Australian wool as will correspond to two-thirds of the total quantity up to 500,000 bales imported from all countries, and such additional quantity as will correspond to three-fourths of the total imports in excess of 500,000 bales. It is further provided that the difference between the quantity imported into Japan during the period from 1st January, 1937 to 30th June, 1938, and 600,000 bales shall be imported into Japan during the period of one year from 1st July, 1938. This additional quantity shall not be taken into consideration in determining Australia's wool allotment on the basis of a proportion of total imports for the year (shipments of Australian wool to Japan in the period from 1st January, 1937 to 30th June, 1938, amounted to approximately 521,929 bales).

The only alteration made in the import quotas for Japanese textiles is the inclusion of staple fibre piece goods in the artificial silk goods quota. The quantity to be imported is fixed as before at 102,500,000 square yards per annum in equal quantities of artificial silk and cotton piece goods. As in the previous agreement calico for use in the manufacture of bags is admitted without restriction.

Provision is made in the arrangement for a review by the Commonwealth Government of the textile piece goods quotas if it should appear at any time that the quantity of Australian wool to be imported into Japan during the year commencing 1st July, 1938, will be less than 200,007 bales in addition to approximately 100,000 bales representing the difference between 600,000 bales and the quantity of Australian wool imported into Japan between 1st January, 1937, and 30th June, 1938.

8. Australian Trade Diversion.—On 22nd May, 1936, Sir Henry Gullett, Minister directing negotiations for Trade Treaties, announced in the House of Representatives the decision of the Government to divert portion of Australia's import trade, with the object of increasing exports of primary produce, expanding secondary industry, and bringing about an increase of rural and industrial employment.

Briefly summarized the Minister's statement indicated that certain imports would be restricted with a view to their manufacture in Australia, including motor chassis, which, it was hoped, would be made in Australia on a large scale within a few years. In the case of certain other imports it was intended to divert them from their present sources of supply to other countries which were great customers of Australia and which it was expected would become greater customers if Australia increased her purchases

from them. The Government would proceed in two ways, firstly, by the adoption of a special licensing system over a limited range of imports and, secondly, by the imposition of higher duties where this course appeared more desirable. With the exception of motor chassis all goods of British origin would be exempt from the licensing system. In the case of motor chassis imports of United Kingdom origin only would be exempt from restriction. Upon application licences would be freely granted to countries with which Australia had a favourable balance of trade and to all other countries in regard to which, although the balance might be adverse to the Commonwealth, the Government was satisfied with the position.

The special licensing system was introduced on 23rd May, 1936, in the form of an amendment to the Customs (Prohibited Imports) Regulations which prohibited the import, except under special licence, of 84 classified groups of goods from foreign countries. On 7th December, 1937, the Minister for Trade and Customs announced important modifications of the licensing system and the intention of the Government to substitute adequate duties to protect Australian industries established or extended under the licensing system. These duties were imposed by Customs and Excise Resolutions of 4th May, 1938, and all licensing restrictions on the 84 groups of goods were removed from that date. Other references to this subject and to restrictions imposed on the import of motor chassis will be found in § 2 par. 2 of this chapter.

9. **United States of America—Australian Trade Relations.**—The trade diversion policy of the Commonwealth Government as expressed by the prohibition, except under special licence, of specified imports as from 23rd May, 1936, adversely affected a wide range of goods from the United States of America, which for a number of years had enjoyed an extremely favourable trade balance with Australia. In reply to this action the United States Government withdrew as from 1st August, 1936, the most favoured nation treatment hitherto accorded to Australian goods including certain trade benefits extended to Australia equally with a number of countries with which the United States had concluded trade agreements. A further step bearing on the trade relations between the two countries was the extension by the Commonwealth Government to "proclaimed countries" as from 1st January, 1937, of intermediate customs tariff rates and certain primage duty concessions. The list of "proclaimed countries" includes the United Kingdom, the Dominions and Colonies, and the principal foreign countries but does not include the United States.

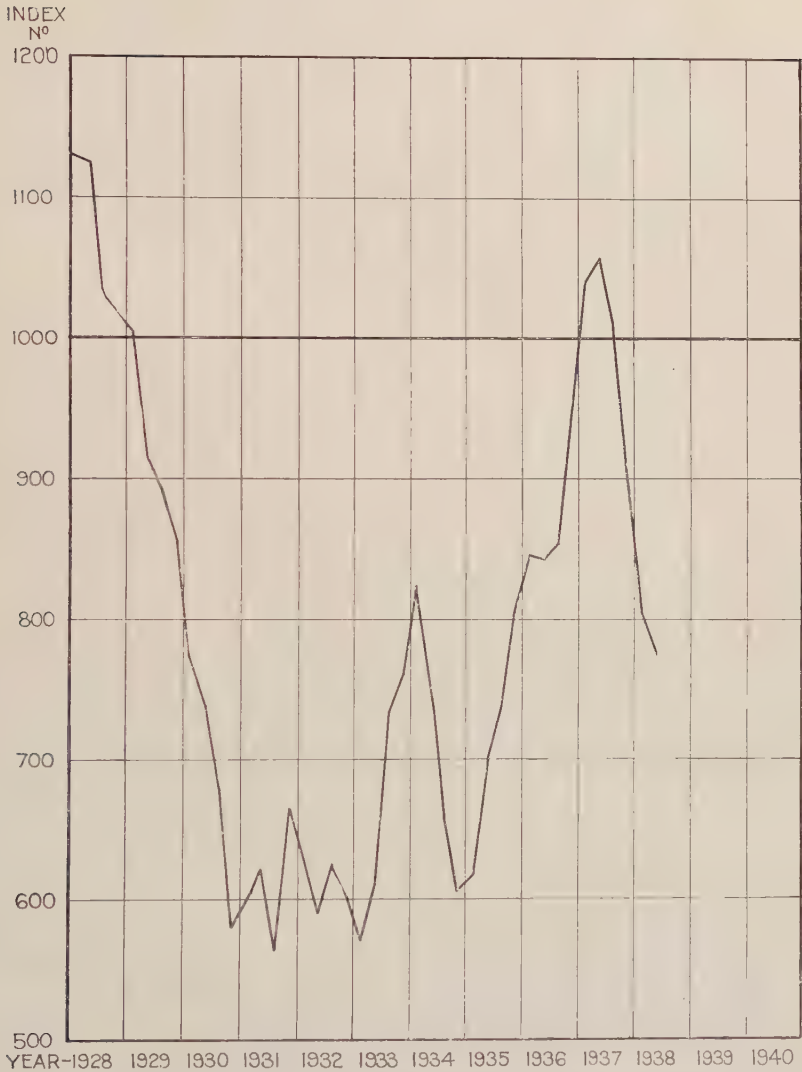
10. **Restriction of Imports into Japan.**—An Imperial Ordinance, No. 124 of 1936, affecting the trade of Australia with Japan was promulgated on 25th June, 1936, by the Government of Japan.

Article I. of the Ordinance states that in accordance with the provisions of Article I. of Law No. 45 of 1934, goods produced or manufactured in countries which are applying at the date of the present Ordinance "unreasonable restrictive measures in respect of the importation of goods produced or manufactured in Japan" shall not be imported into Japan for the duration of one year except with the permission of the competent Minister of State who shall proclaim the countries referred to. List "A" of the Ordinance limits the articles prohibited to wheat, flour and wool.

Article II. of the Ordinance imposes an import duty of 50 per cent. *ad valorem* in addition to the Import Tariff annexed to the Customs Tariff Law for the duration of one year on articles produced or manufactured in countries proclaimed. List "B" of the Ordinance restricts the provisions of Article II. to beef, butter, condensed milk, hides and skins, beef tallow, and casein.

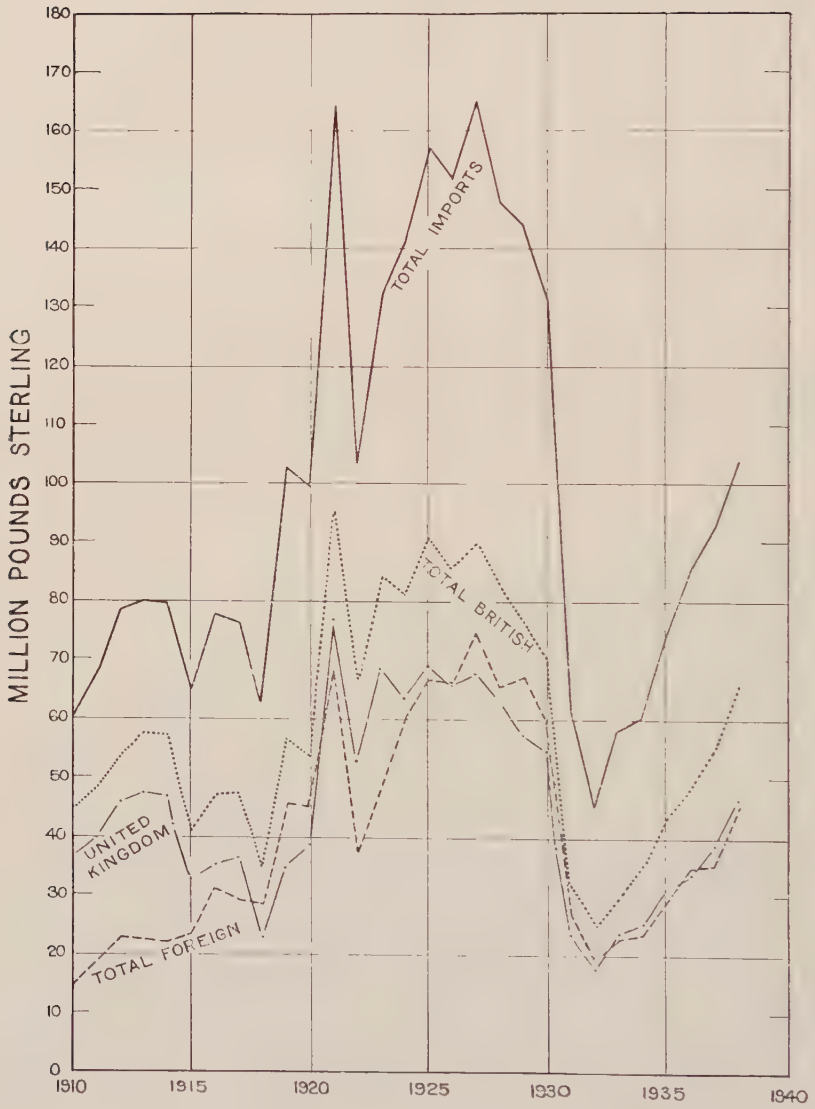
In a proclamation of the Department of Finance and the Department of Commerce and Industry of 25th June, 1936, the country referred to in Imperial Ordinance No. 124 of 1936 is proclaimed as "Commonwealth of Australia."

EXPORT PRICES INDEX-NUMBERS—AUSTRALIA, 1928 TO 1938.

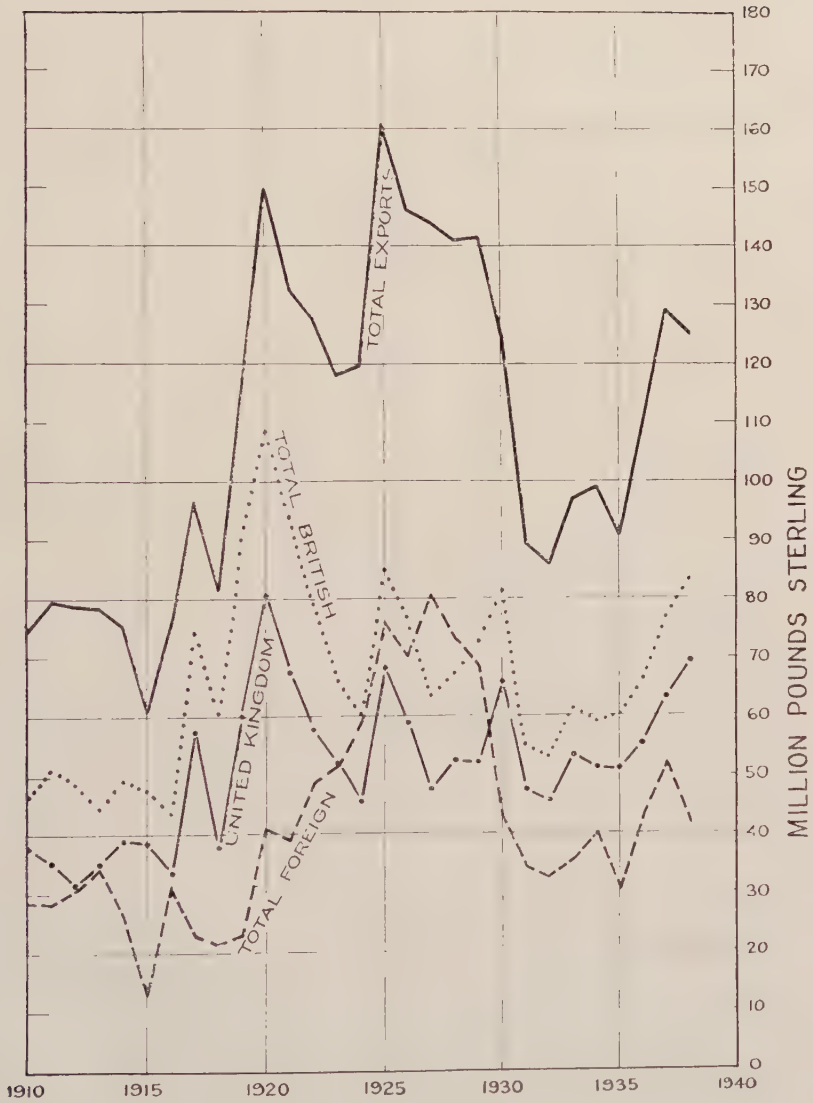


EXPLANATION.—This graph represents the Fixed Base series of Export Price Index-Numbers computed quarterly with the average for year 1928-29 as base (= 1,000).

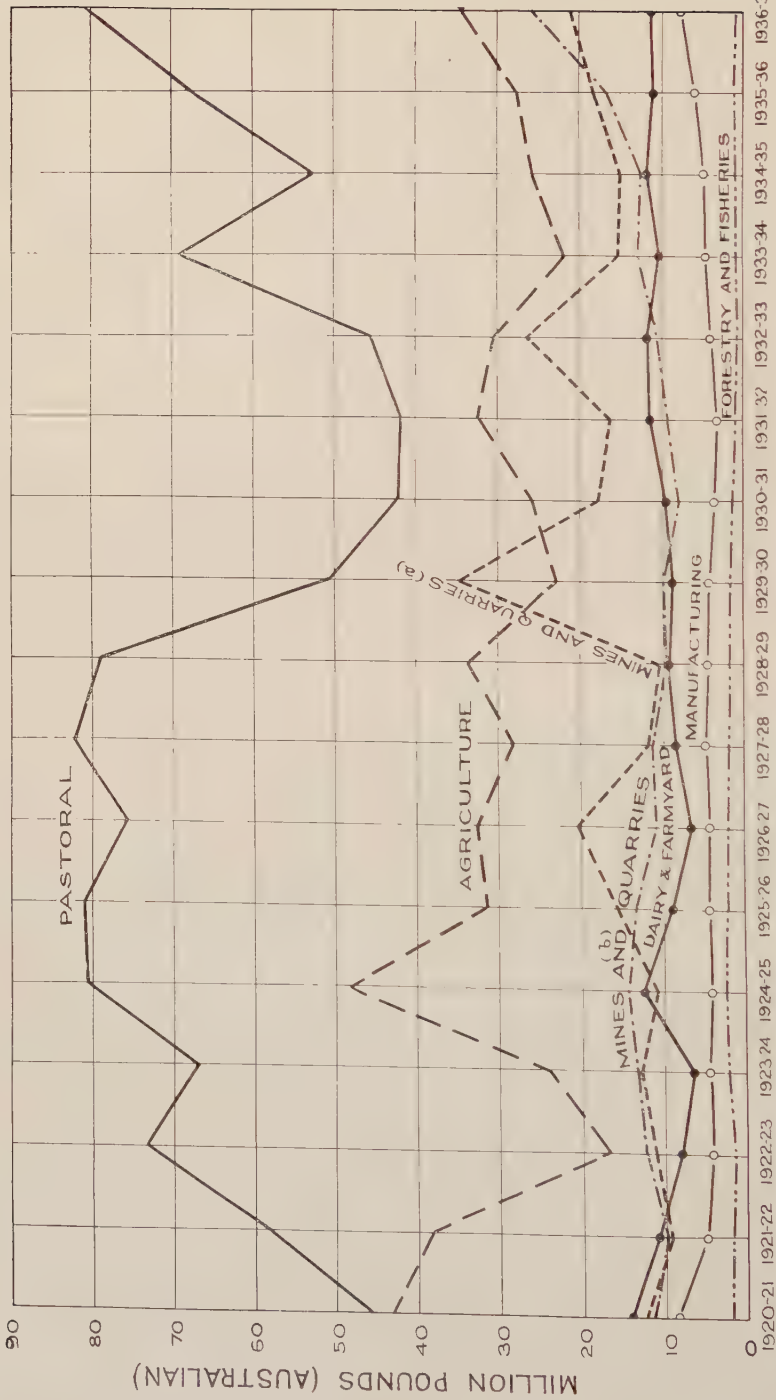
IMPORTS INTO AUSTRALIA, 1910 TO 1938.



EXPORTS FROM AUSTRALIA, 1910 TO 1938.



EXPORTS OF AUSTRALIAN PRODUCTS ACCORDING TO INDUSTRIES, 1920-21 TO 1936-37.



EXPLANATION. Mines and Quarries (a) represents the total exports of the produce of this industry, including lathum and specie.
Mines and Quarries (b) represents the export of products other than Gold, to which is added the value of gold produced in the respective years.

The restrictions imposed by Imperial Ordinance, No. 124 of 1936, were abolished as from 1st January, 1937, under the terms of the trade agreement concluded between the Governments of Japan and the Commonwealth of Australia.

11. Tariff Board.—The Tariff Board Act 1921-1934 provides for the appointment of a Tariff Board consisting of four members, one of whom shall be an administrative officer of the Department of Trade and Customs. This member may be appointed Chairman of the Board. Members of the Board are appointed for a term of not less than one year nor more than three years, and two members may be appointed as a Committee for making special inquiries. The purpose of the Tariff Board is to assist the Minister in the administration of matters relating to trade and customs. The more important matters which the Minister shall refer to the Board for inquiry and report include disputes arising out of the interpretation of any Customs or Excise Tariff; the necessity for new, increased or reduced duties; the necessity for granting bonuses; any proposal for the application of the British Preferential Tariff to any part of the British Dominions or any foreign country; and any complaint that a manufacturer is taking undue advantage of the protection afforded him by the tariff by charging unnecessarily high prices for his goods or acting in restraint of trade. The Minister may refer to the Board for inquiry and report the following matters:—the classification of goods under items of the Tariff that provide for admission under By-laws; the determination of the value of goods for duty; the general effect of the working of the Customs Tariff and the Excise Tariff; the fiscal and industrial effects of the Customs laws of the Commonwealth; the incidence between the rates of duty on raw materials and on finished or partly finished products; and any other matter affecting the encouragement of primary and secondary industries in relation to the Tariff.

Inquiries conducted by the Board relating to any revision of the Tariff, any proposal for a bounty, or any complaints that a manufacturer is taking undue advantage of the protection afforded him by the Tariff shall be held in public, and evidence in such inquiries shall be taken in public on oath, unless any witness objects to giving any evidence in public which the Board is satisfied is of a confidential nature, when the Board may take such evidence in private. Evidence taken by the Board in connexion with any inquiry under the Customs Tariff (Industries Preservation) Act 1921-1936 shall be taken in public on oath.

The latest "Annual Report of the Tariff Board," issued in accordance with Section 18 (1) of the Tariff Board Act 1921-1934 reviews the work of the Board during the year ended 30th June, 1937. During the year the Board furnished 69 reports to the Minister for Trade and Customs, and of these reports 61 related to matters on which public inquiries had been held. The subjects dealt with comprised:—Tariff revision, 52; Excise Tariff revision 1; question of inclusion under or removal from by-law, 4; tariff revision combined with requests for admission under or removal from by-law, 3; and the question of the necessity for the operation of Sections 4 and 7 of the Customs Tariff (Industries Preservation) Act, 1. Questions regarding the bringing into operation of deferred duties provided in the Customs Tariff which did not necessitate the holding of public inquiries were dealt with in 7 reports. At 30th June, 1937, the Board had on hand 63 subjects on which reports had not been furnished to the Minister.

The Minister for Trade and Customs on 14th December, 1932, referred to the Tariff Board for public inquiry and report the question as to the practicability of evolving some method of varying duties imposed under protective items of the Customs Tariff to meet the operation of exchange and primage. The recommendation of the Board regarding exchange adjustment was embodied in Customs Tariff (Exchange Adjustment) Act 1933. In regard to primage duty, the Board reaffirmed its recommendation to the Minister, dated 5th August, 1932, that primage duty should be removed from protective items in the Tariff Schedule, and suggested the adoption of such recommendation so soon as the Government considered that revenue considerations permitted.

12. Industries Preservation.—The Customs Tariff (Industries Preservation) Act 1921-1936 provides that after inquiry and report by the Tariff Board, special duties shall be collected in the following cases when the importation of the goods referred to might be

detrimental to an Australian industry :—In the case of goods sold for export to Australia at a price less than the fair market price for home consumption or at a price which is less than a reasonable price, a special dumping duty shall be collected equal to the difference between the price at which the goods were sold and a fair market price. Similar provision is made for goods consigned to Australia for sale. With regard to goods exported to Australia at rates of freight less than the normal rate of freight the dumping freight duty shall be—on goods carried free—the amount payable as freight at the normal rate; and in the case of any other goods—an amount equal to the difference between the freight paid and the freight which would have been payable at the normal rate. Special duties are also imposed in the case of goods imported from countries whose currency is depreciated. Provision is also made for the protection of the trade of the United Kingdom in the Australian market from depreciated foreign currency.

The Act provides that the Minister for Trade and Customs, after inquiry and report by the Tariff Board, may publish a notice in the *Commonwealth Government Gazette* specifying the goods upon which special rates of duty under this Act shall be charged and collected. Several amendments of the Act were recommended by the Tariff Board and put into effect by the Customs Tariff (Industries Preservation) Act 1922. The Customs Tariff (Industries Preservation) Act 1933 repeals section 8 of Act 1921-1922 and provides new clauses relating to Exchange Special Duty.

13. *Trade Descriptions.*—The Commerce (Trade Descriptions) Act 1905 as amended by the Acts of 1926, 1930 and 1933 gives power to compel the placing of a proper description on certain prescribed goods, or on packages containing the same, being imports or exports of the Commonwealth. The goods to which a trade description must be applied are :—*(a)* Articles used for food or drink by man, or used in the manufacture or preparation of articles used for food or drink by man; *(b)* medicines or medicinal preparations for internal or external use; *(c)* manures; *(d)* apparel (including boots and shoes), and the materials from which apparel is manufactured; *(e)* jewellery; *(f)* seeds and plants; and *(g)* brushware.

14. *Acts passed in 1937.*—The following Acts relating to Australian production and trade were assented to during the year 1937 :—

Primary Producers Relief Act, No. 4 of 1937. An Act to amend the Primary Producers Relief Act 1935-1936.

Primary Producers Export Charges Act, No. 9 of 1937. An Act to amend the Primary Produce Export Charges Act 1935.

Dairy Produce Export Control Act, No. 20 of 1937. An Act to amend the Dairy Produce Export Control Act 1924-1936.

Dried Fruits Export Control Act, No. 21 of 1937. An Act to amend the Dried Fruits Export Control Act 1924-1935.

States Grants (Fertilizer) Act, No. 29 of 1937. An Act to provide for financial assistance to the States in the making of payments to primary producers, and for other purposes.

Customs Tariff Validation Act, No. 31 of 1937. An Act to provide for the validation of collections of duties of customs under Customs Tariff Proposals.

Customs Tariff (Exchange Adjustment) Validation Act, No. 32 of 1937. An Act to provide for the validation of adjustment in duties of customs under Customs Tariff (Exchange Adjustment) Proposals.

Customs Tariff (Canadian Preference) Validation Act, No. 33 of 1937. An Act to provide for the validation of collections of duties of customs under Customs Tariff (Canadian Preference) Proposals.

Excise Tariff Validation Act, No. 34 of 1937. An Act to provide for the validation of collections of duties of excise under Excise Tariff Proposals.

Papua and New Guinea Bounties Act No. 35 of 1937. An Act to provide for the payment of bounties on certain goods the produce or manufacture of the Territory of Papua and on certain goods the produce or manufacture of the Territory of New Guinea.

- Apple and Pear Bounty Act, No. 36 of 1937.** An Act to provide for the payment of a bounty on the export of apples and pears from the Commonwealth.
- Citrus Fruits Bounty Act, No. 38 of 1937.** An Act to provide for the payment of a bounty on the export of citrus fruits from the Commonwealth during the year 1937.
- Wine Grape Charges Act, No. 39 of 1937.** An Act to amend the Wine Grape Charges Acts 1929.
- Dairy Produce Export Charges Act, No. 40 of 1937.** An Act to amend the Dairy Produce Export Charges Act 1924-1929 and for other purposes.

§ 3. Trade Representatives.

1. **Oversea.**—The Commonwealth of Australia is represented in the United Kingdom by the Right Hon. S. M. Bruce, C.H., M.C., High Commissioner, with headquarters at Australia House, London. Matters affecting the overseas trade of Australia come within the scope of the duties of the office.

The Commonwealth has a Trade Representative in France, with head-quarters at Paris. This official is attached to Australia House, London.

The first appointment of a representative for Australia in the United States of America was made in 1918. The office of Commissioner-General for Australia in the United States was changed to that of Australian Government Trade Commissioner as from 1st July, 1938.

In April, 1920, a Commercial Representative for Australia was appointed in the Dominion of Canada, with head-quarters at Toronto. The position is at present vacant.

The Trade Commissioners Act 1933 provides for the appointment of one or more Trade Commissioners and Assistant Trade Commissioners of the Commonwealth in such places as the Governor-General determines. In April, 1934, the first appointment under the Act was made, Mr. R. H. Nesbitt being appointed Australian Trade Commissioner in New Zealand, with head-quarters at Wellington. Mr. Nesbitt resigned in April, 1937, and was succeeded in July, 1937, by Mr. C. E. Critchley, formerly Australian Trade Commissioner in Netherlands East Indies. In May, 1935, Trade Commissioners and Assistant Trade Commissioners were appointed to Japan, China and Netherlands East Indies, in January, 1937, a Trade Commissioner was appointed to Egypt and from 1st July, 1938, an Australian Government Trade Commissioner was appointed in the United States of America. The Trade Commissioners are—Canada, vacant; China, Mr. V. G. Bowden, Shanghai; Egypt, Col. C. E. Hughes, C.B.E., Cairo; Japan, Lt. Col. E. Longfield Lloyd, Tokio; Netherlands East Indies, Mr. H. A. Peterson, Batavia; New Zealand, Mr. C. E. Critchley, Wellington; and United States of America, Mr. L. R. McGregor, New York.

2. **In Australia.**—Trade Commissioners representing the undermentioned countries are located in Australia, viz.:—The United Kingdom, Canada, New Zealand, United States of America and France. His Majesty's Senior Trade Commissioner for the United Kingdom has his head-quarters in Sydney and Trade Commissioners are located also at Melbourne and Brisbane. The New Zealand Government Representative and Trade Commissioner, the Senior Canadian Government Trade Commissioner and the Trade Commissioners for United States of America and France are located in Sydney. Trade matters affecting other overseas countries are generally attended to by their Consular representatives.

§ 4. Method of Recording Imports and Exports.

1. **Value of Imports.**—The recorded value of goods imported from countries beyond Australia as shown in the following tables represents the amount on which duty is payable or would be payable if the duty were charged *ad valorem*. The value of goods is taken to be 10 per cent. in advance of their fair market value in the principal markets of the

country whence the goods were exported. Acting upon a recommendation of the Tariff Board the section of the Customs Act relating to the valuation of imports was amended, and Section 154 (1) of the Customs Act 1901-1936 now provides that "when any duty is imposed according to value, the value for duty shall be the sum of the following :—

- (a) (i) the actual money price paid or to be paid for the goods by the Australian importer plus any special deduction, or
- (ii) the current domestic value of the goods, whichever is the higher ;
- (b) all charges payable or ordinarily payable for placing the goods free on board at the port of export ; and
- (c) ten per centum of the amounts specified under paragraphs (a) and (b) of this sub-section.

"Current domestic value" is defined as "the amount for which the seller or the goods to the purchaser in Australia is selling or would be prepared to sell for cash, at the date of exportation of those goods, the same quantity of identically similar goods to any and every purchaser in the country of export for consumption in that country."

Imports are recorded in British currency values, and Section 157 of the Customs Act provides that when the invoice value of imported goods is shown in any currency other than British currency, the equivalent value in British currency shall be ascertained according to a fair rate of exchange to be declared in case of doubt by the Minister. Under this section it was the practice of the Department of Trade and Customs, until the 8th December, 1920, to convert on the basis of the mint par of exchange. Since the date mentioned, in consequence of a ruling of the High Court, all conversions have been based on the commercial rates of exchange.

The term "British currency values" is not exactly synonymous with "English sterling", since imports already expressed in terms of £. s. d. are regarded for duty purposes as being expressed in British currency values. This exception to the general rule is chiefly important in the case of imports from New Zealand and the Union of South Africa when their currencies are not at par with English currency. In all the tables in this volume no correction has been made on this account, even when for the sake of brevity the term "sterling" has been used as a contraction for "British currency values."

2. Value of Exports.—Prior to the 1st July, 1929, the recorded value of all goods exported was taken as representing the value in the principal markets of the Commonwealth in the ordinary commercial acceptance of the term. Owing to the inflated values arbitrarily allotted in recent years to commodities which are subject to governmental control or subsidy, some change in the practice of valuation of exports of such commodities became desirable. Accordingly a new basis was adopted as from 1st July, 1929, for the statistical valuation of exports of sugar, butter and goods on which bounty or rebate was paid which would show for (a) *Sugar*—the value f.o.b. at which sold to overseas buyers, or a f.o.b. value equal to the London market price if shipped on consignment ; (b) *Goods on which bounty or rebate was paid on export*—the value in the principal markets of the Commonwealth in the ordinary commercial acceptance of the term, less the value of any bounty or rebate. Until the 31st March, 1934, the basis adopted for the value of exports of butter was the current market value, less the amount paid as export bonus. From 31st March, 1934, to 30th June, 1937, the basis was (a) sold in Australia for export—the f.o.b. equivalent of the price at which the butter was sold and (b) shipped on consignment—the f.o.b. equivalent of the ruling price overseas.

From 1st July, 1930, to 30th June, 1937, the basis adopted for the value of *wool* exported was (a) sold in Australia for export the actual price paid plus the cost of services incurred in placing the wool on board ship, and (b) shipped on consignment—the f.o.b. equivalent of ruling Australian prices.

From 1st July, 1932, to 30th June, 1937, the basis adopted for the value of *wheat* exported was (a) sold in Australia for export—the f.o.b. equivalent of the price at which the wheat was sold, and (b) shipped on consignment—the f.o.b. equivalent of the current selling price overseas.

From 1st July, 1934, to 30th June, 1937, the basis adopted for the value of *flour* exported was (a) sold in Australia for export—the f.o.b. equivalent of the price at which the flour was sold, and (b) shipped on consignment—the f.o.b. equivalent of ruling Australian prices.

Since 1st July, 1937, the following revised definitions of f.o.b. values have been adopted for exports generally :—

- (1) Goods sold to overseas buyers before export—the f.o.b. equivalent of the price at which the goods were sold (e.g., as regards wool, the actual price paid by the overseas buyer plus the cost of all services incurred by him in placing the wool on board ship).
- (2) Goods shipped on consignment—the Australian f.o.b. equivalent of the current price offering for similar goods of Australian origin in the principal markets of the country to which the goods were dispatched for sale (as regards wool, the f.o.b. equivalent of current price ruling in Australia will normally provide a sufficient approximation to the f.o.b. equivalent of the price ultimately received).

All values to be shown in terms of Australian currency, and to include cost of containers.

3. **Customs Area.**—The Customs Area, to which all overseas trade statistics issued by this Bureau apply, is the whole area of the Commonwealth of Australia, comprising the States of New South Wales (including Australian Capital Territory), Victoria, Queensland, South Australia, Western Australia and Tasmania, and the Northern Territory. Non-contiguous territories and mandated areas are treated as outside countries, and trade transactions between the Commonwealth and these non-contiguous territories are part of the overseas trade of the Commonwealth. Such transactions are shown separately, i.e., the trade of the Commonwealth with each particular country is separately recorded and tabulated.

4. **Statistical Classification of Imports and Exports.**—The Oversea Trade Bulletin No. 34 for the year 1936-37, from which the summary figures in this Year Book have been extracted, was compiled according to a classification which came into operation on 1st July, 1922. In order to meet the demand for more detailed information relating to imports and exports the number of items has been materially increased. The revised classification at 30th June, 1937, was divided into 21 classes, with approximately 2,000 separate import items and 600 export items.

5. **The Trade Year.** From 1st July, 1914, the statistics relating to Oversea Trade have been shown according to the fiscal year (July to June). Prior to that date the figures related to the calendar year. A table is given in § 15 showing the total value of imports and exports in the calendar years 1934 to 1937 inclusive.

6. **Records of Past Years.**—In the years preceding federation, each State independently recorded its trade, and in so doing did not distinguish other Australian States from foreign countries. As the aggregation of the records of the several States is necessarily the only available means of ascertaining the trade of Australia for comparison with later years, it is unfortunate that past records of values and the direction of imports and exports were not on uniform lines. The figures in the following table for years prior to federation have been carefully compiled and may be taken as representative of the overseas trade of Australia as a whole. On the introduction of the Customs Act 1901, the methods of recording values were made uniform throughout the States, but it was not until September, 1903, that a fundamental defect in the system of recording transhipped goods was remedied. Prior to 1905 the value of ships imported or exported was not included in the returns of trade.

7. **Ships' Stores.**—Prior to 1906 goods shipped in Australian ports on board overseas vessels as ships' stores were included in the general exports. From 1906, ships' stores have been specially recorded as such, and omitted from the return of exports. A table showing the value of these stores shipped each year since 1906 is given later in this Chapter.

§ 5. Oversea Trade.

1. **Total Oversea Trade.**—(i) *Including Gold.* The following table shows the total trade (including gold) of the Commonwealth with overseas countries from the earliest date for which records are available. To save space, the period 1826 to 1925-26 has been divided into quinquennia, and the figures shown represent the annual averages for the quinquennia specified. The figures for individual years were published in earlier issues of the Year Book. (See note to following table.)

TOTAL OVERSEA TRADE.—AUSTRALIA.

(INCLUDING GOLD.)

Period.(a)	Recorded Value.(c)			Value per Inhabitant.			Percentage of Exports on Imports.
	Imports.	Exports.	Total.	Imports.	Exports.	Total.	
	£1,000.	£1,000.	£1,000.	£ s. d.	£ s. d.	£ s. d.	%
1826 to 30	638	153	791	10 12 5	2 10 11	13 3 4	23.9
1831 " 35	1,144	613	1,757	11 19 10	6 8 6	18 8 4	53.6
1836 " 40	2,283	1,112	3,395	14 15 9	7 4 1	21 19 10	48.7
1841 " 45	1,906	1,378	3,284	9 0 5	6 10 5	15 10 10	72.3
1846 " 50	2,379	2,264	4,643	6 18 10	6 12 2	13 11 0	95.2
1851 " 55	11,931	11,414	23,345	19 12 5	18 15 4	38 7 9	95.7
1856 " 60	18,816	16,019	34,835	18 6 1	15 11 8	33 17 9	85.1
1861 " 65	20,132	18,699	38,831	15 17 1	14 14 9	30 11 10	93.0
1866 " 70	18,691	19,417	38,108	12 7 4	12 16 11	25 4 3	103.9
1871 " 75	21,982	24,247	46,229	12 7 2	13 13 6	26 0 8	110.3
1876 " 80	24,622	23,772	48,394	11 19 7	11 10 9	23 10 4	96.6
1881 " 85	34,895	28,055	62,950	14 4 3	11 9 5	25 13 8	80.4
1886 " 90	34,675	26,579	61,254	11 16 11	9 1 0	20 17 11	76.6
1891 " 95	27,335	33,683	61,018	8 5 2	10 2 5	18 7 7	123.2
1896 " 1900	33,763	41,094	74,857	9 5 4	11 5 6	20 10 10	121.7
1901 " 05	39,258	51,237	90,495	10 1 10	13 2 9	23 4 7	130.5
1906 " 10	51,508	69,336b	120,844	12 4 8	16 9 11	28 14 7	134.6
1911 " 15-16	73,411	74,504	147,915	15 7 4	15 12 10	31 0 2	101.5
1916-17 to 1920-21	100,735	115,066	215,801	19 7 9	22 2 10	41 10 7	114.2
1921-22 to 1925-26	136,844	134,545	271,389	23 15 6	23 7 7	47 3 1	98.3
1926-27 ..	164,717	144,084	308,801	26 18 1	23 10 9	50 8 10	87.5
1927-28 ..	147,945	141,206	289,151	23 13 8	22 12 0	46 5 8	95.4
1928-29 ..	143,648	141,633	285,281	22 12 3	22 5 11	44 18 2	98.6
1929-30 ..	131,081	125,127	256,208	20 7 7	19 9 0	39 16 7	95.5
1930-31(d)	60,960	104,856	..	9 7 7	16 2 9	..	..
(e)	60,960	89,326	150,286	9 7 7	13 14 11	23 2 6	146.5
1931-32(d)	44,713	108,404	..	6 16 6	16 10 10	..	..
(e)	44,713	85,348	130,061	6 16 6	13 0 5	19 16 11	190.9
1932-33(d)	58,014	120,943	..	8 15 8	18 6 3	..	..
(e)	58,014	96,597	154,611	8 15 8	14 12 6	23 8 2	166.5
1933-34(d)	60,713	123,441	..	9 2 6	18 11 0	..	..
(e)	60,713	98,573	159,286	9 2 6	14 16 2	23 18 8	162.4
1934-35(d)	74,119	112,986	..	11 1 2	16 17 2	..	..
(e)	74,119	90,225	164,344	11 1 2	13 9 3	24 10 5	121.7
1935-36(d)	85,253	136,381	..	12 12 7	20 4 1	..	..
(e)	85,253	108,907	194,160	12 12 7	16 2 8	28 15 3	127.8
1936-37(d)	92,640	161,557	..	13 12 4	23 14 10	..	..
(e)	92,640	129,010	221,650	13 12 4	18 19 2	32 11 6	139.3
1937-38(d)(f)	113,975	157,005	..	16 12 1	22 17 6	..	..
(e)	113,975	125,379	239,354	16 12 1	18 5 4	34 17 5	110.0

(a) The figures given for the years 1826 to 1925-26 represent the annual averages for the quinquennial periods. The trade of the individual years will be found in Official Year Book No. 29 and earlier issues. From 1914-15 onwards the particulars relate to fiscal years. (b) Prior to 1906, ships' stores were included in the general exports. For value of these goods shipped each year since 1906 see later table, § 9. (c) For actual values for recent years, showing merchandise and bullion and specie separately, see § 8, pars. 5 and 6. (d) Recorded values. Imports, British currency; Exports, Australian currency. (e) British currency values. (f) Preliminary figures, subject to revision.

In previous issues of the Official Year Book fluctuations in the value of the oversea trade of Australia have been treated in some detail for earlier years. The enhanced prices ruling for commodities and the peculiar conditions affecting Australian trade were responsible for the high value of imports in the years following the war and these factors should be taken into consideration in making comparisons with pre-war years.

In 1924-25 the total value of oversea trade was £318,454,000 represented by imports £157,143,000, and exports £161,311,000. So far as total trade and exports are concerned these figures are the highest recorded, but the figure for imports was exceeded in 1920-21, and again in 1926-27. Imports in 1924-25, however, included an exceptionally large quantity of bullion and specie valued at £10,543,000. In the three years ended 1928-29 imports fell but exports were well maintained and in 1929-30 both imports and exports declined substantially. The full effects of the economic depression and of certain restrictions imposed by the Commonwealth Government are reflected in the greatly diminished trade figures for 1930-31 onwards. The lowest level was recorded in 1931-32 when the total trade amounted to £130,001,000. Most of the Government restrictions were removed in 1932. Following a gradual improvement in 1933-34 and 1934-35 recovery was more rapid in the three years ended 1937-38 owing to higher prices for exports of primary products and the rising flow of imports. Since 1933-34 imports have risen on the average by £13,000,000 per annum, the actual increase in 1937-38 being more than £21,000,000. Exports, on the other hand, declined sharply in 1934-35 owing to a drop in wool values, but rose substantially in 1935-36 and again in 1936-37 only to decline by nearly £4,000,000 in 1937-38 with the recession in export prices which began in the early months of the latter year.

(ii) *Excluding Gold.* In recent years there have been large gold movements of an exceptional nature, which have been included in the previous table. The fluctuations in merchandise trade (including silver as merchandise) are shown more clearly in the following table, from which all gold movements have been excluded:—

OVERSEA TRADE—AUSTRALIA.

(EXCLUDING GOLD BULLION, SPECIE AND IN MATTE.)

British Currency Values.

Year.	Imports excluding Gold.	Exports excluding Gold.	Total Trade excluding Gold.	Value per Inhabitant.			Percentage of Exports on Imports.
				Imports.	Exports.	Total Trade.	
	£1,000. Stg.	£1,000. Stg.	£1,000. Stg.	£ s. d. Stg.	£ s. d. Stg.	£ s. d. Stg.	%
1932-33	56,872	78,502	135,434	8 12 3	11 17 11	20 10 2	138.1
1933-34	59,502	90,914	150,416	8 18 10	13 13 3	22 12 1	152.8
1934-35	72,440	82,371	154,811	10 16 2	12 5 10	23 2 0	113.7
1935-36	83,617	98,886	182,503	12 7 0	14 13 0	27 0 9	118.3
1936-37	90,642	117,900	208,542	13 6 5	17 6 6	30 12 11	130.1
1937-38 ^a	111,782	112,649	224,431	16 5 8	16 8 3	32 13 11	100.8

(a) Preliminary figures, subject to revision.

2. *Balance of Trade.*—The table on page 504 shows the percentage of exports on imports (including gold) for quinquennial periods from 1826 to 1925-26 and for each financial year from 1926-27 to 1937-38, while the table on page 505 shows the percentage

of exports on imports (excluding gold) for each financial year 1932-33 to 1937-38. Reference to the first mentioned table shows that prior to the quinquennial period 1891-95 the balances of trade, with two exceptions, due to temporary dislocations, had been on the side of imports, while from that period to 1920-21, the position was reversed. During the subsequent quinquennial period ended 1925-26, there was an excess of imports, as was the case in each of the years 1926-27 to 1929-30. From 1930-31 to 1937-38 exports greatly exceeded imports.

In recent years imports and exports of gold for monetary purposes have made the interpretation of the foregoing tables more difficult. In the following table, the balance of commodity trade, including the value of gold currently produced in Australia, has been separated from the monetary movement of gold :—

COMMODITY BALANCE OF TRADE AND MONETARY MOVEMENT OF GOLD.

British Currency Values.

Year.	A. Total Imports other than Gold. (Specie, Bullion and in Matte.)	B. Total Exports, other than Gold. (Specie, Bullion and in Matte.)	C. Gold produced in Australia.	D. Total of Mer- chandise exports and Gold Production.	E. Commodity Balance of Trade.	F. Net Ex- ports of Gold (Specie, Bullion and in Matte) in excess of Production.	G. Total Balance
				B+C	D-A	F	E+F
	£1,000,000	£1,000,000	£1,000,000	£1,000,000	£1,000,000	£1,000,000	£1,000,000
1910 ..	59.0	69.8	11.6	81.4	22.4	- 7.9	14.5
1911 ..	65.4	67.5	10.5	78.0	12.6	- 0.1	12.5
1912 ..	76.8	66.8	9.9	76.7	- 0.1	1.1	1.0
1913 ..	78.4	75.1	9.4	84.5	6.1	- 7.3	- 1.2
1914 (a) ..	39.0	36.5	4.4	40.9	1.9	- 3.7	- 1.8
1914-15 ..	61.0	58.0	8.5	66.5	2.5	- 6.3	- 3.8
1915-16 ..	77.2	64.2	7.7	71.9	- 5.3	2.3	- 3.0
1916-17 ..	76.0	86.3	6.6	92.9	16.9	4.8	21.7
1917-18 ..	60.8	75.0	5.8	80.8	20.0	- 0.9	19.1
1918-19 ..	95.0	106.8	5.4	112.2	17.2	- 5.6	11.6
1919-20 ..	98.9	144.3	5.4	144.7	50.8	0.1	50.9
1920-21 ..	163.8	126.8	4.7	131.5	- 32.3	0.6	- 31.7
1921-22 ..	103.0	124.3	3.8	128.1	- 25.1	- 0.3	- 24.8
1922-23 ..	131.7	115.6	3.3	118.9	- 12.8	- 1.1	- 13.9
1923-24 ..	140.6	116.7	3.2	119.9	- 20.7	- 0.4	- 21.1
1924-25 ..	146.7	160.4	2.8	163.2	16.5	- 12.3	4.2
1925-26 ..	151.3	141.9	2.3	144.2	- 7.1	1.7	- 5.4
1926-27 ..	164.1	132.7	2.2	134.9	- 29.2	8.6	- 20.6
1927-28 ..	146.9	138.4	2.1	140.5	- 6.4	- 0.3	- 6.7
1928-29 ..	143.3	138.6	1.9	140.5	- 2.8	0.8	- 2.0
1929-30 ..	130.8	98.2	1.9	100.1	- 30.7	24.7	- 6.0
1930-31 ..	60.6	77.1	2.2	79.3	18.7	9.7	28.4
1931-32 ..	44.1	75.8	3.6	79.4	35.3	5.3	40.6
1932-33 ..	56.9	78.6	4.6	83.2	26.3	12.3	38.6
1933-34 ..	59.5	90.9	5.7	96.6	37.1	0.8	37.9
1934-35 ..	72.5	82.4	6.0	88.4	15.9	0.2	16.1
1935-36 ..	83.6	98.9	8.0	106.9	23.3	0.4	23.7
1936-37 ..	90.6	117.9	9.0	126.0	36.3	0.1	36.4
1937-38 (b) ..	111.8	112.6	10.2	122.8	11.0	0.4	11.4

(a) First six months only.

(b) Preliminary figures, subject to revision.

3. Balance of Payments.—The balance of visible trade, including the net movement of precious metals, does not present a complete picture of Australia's international transactions during each year. Allowance must also be made for unrecorded imports and exports, for services rendered and received, and for international capital and interest transactions. The values of some of these items are known, and some of those remaining can be estimated with a sufficient measure of accuracy, but for many items it is difficult to make even a rough guess. A continuous investigation is being made into the values of these "invisible" items in the balance of payments.

§ 6. Direction of Oversea Trade.

1. Imports according to Country of Origin. The following table shows the value (in British currency) of the imports into Australia during the past five years of commodities stated to be the produce or manufacture of the undermentioned countries. The figures however, do not indicate with any degree of precision the competitive forces of different countries in the Australian import trade. To measure the success or otherwise of these forces requires some analysis which will show the relative amounts of different classes of goods supplied by different countries. The results of such an analysis, confined to the major classes of manufactured goods imported, are shown in § 14 of this Chapter.

AUSTRALIAN IMPORTS.—COUNTRIES OF ORIGIN.

(EXCLUDING GOLD BULLION, SPECIE AND IN MATTE.)

British Currency Values.

Country of Origin.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.(b)
	£ stg.	£ stg.	£ stg.	£ stg.	£ stg.
United Kingdom	25,143,101	30,788,269	33,838,843	38,560,293	46,226,985
British Possessions—					
Canada	2,918,095	4,091,796	5,375,851	6,071,813	8,045,130
Ceylon	718,563	795,307	960,724	1,010,374	890,286
India	2,926,181	2,541,377	2,732,145	2,975,892	3,077,616
Malaya (British)	327,235	561,845	488,254	852,282	1,022,890
New Zealand	1,198,645	1,294,181	1,552,413	1,322,875	1,708,649
Pacific Islands—					
Nauru	288,249	292,431	361,986	383,641	551,920
Papua	93,296	116,716	128,078	191,742	165,245
Territory of New Guinea	68,703	87,523	117,419	195,935	186,884
Other Islands	245,825	346,240	435,941	598,537	468,989
Union of South Africa	133,441	177,063	284,846	250,539	290,843
Other British Possessions	546,692	512,224	720,930	712,069	1,066,616
Total, British Possessions	9,464,925	10,816,703	13,158,587	14,565,699	17,445,077
Total, British Countries ..	34,608,026	41,604,972	46,997,430	53,125,992	63,672,062
Foreign Countries—					
Belgium	368,219	477,864	568,083	783,393	1,140,974
China	285,514	304,127	657,178	683,742	601,870
France	956,335	862,147	790,108	865,919	964,554
Germany	1,920,676	2,145,315	2,963,049	3,596,584	4,170,624
Italy	588,260	557,438	444,141	410,002	814,983
Japan	3,676,737	4,624,740	4,969,571	4,004,465	5,319,087
Netherlands	389,669	504,573	564,236	679,102	656,161
Netherlands East Indies	3,960,233	4,390,327	4,928,025	6,176,385	7,530,509
Norway	340,325	382,671	415,252	460,817	495,560
Pacific Islands	39,054	18,446	33,023	69,937	44,029
Philippine Islands	59,733	79,885	92,619	110,231	123,466
Sweden	782,780	828,283	972,006	1,048,655	1,551,333
Switzerland	451,030	462,023	602,145	600,025	873,629
United States of America	7,838,982	11,041,365	13,001,705	12,059,149	17,758,684
Other Foreign Countries	1,729,716	2,238,227	2,656,012	2,982,232	5,643,451
Total, Foreign Countries ..	23,387,263	28,977,431	34,557,243	35,410,728	47,748,914
Total	57,995,289	70,582,403	81,554,673	88,536,720	111,420,976
	(a)	(a)	(a)	(a)	(a)

(a) Excluding Outside Packages, 1933-34, £1,506,132; 1934-35, £1,817,567; 1935-36, £2,002,775; 1936-37, £2,105,362; and 1937-38, £2,551,084. (b) Preliminary figures, subject to revision.

2. Percentage of Imports from Various Countries.—In view of the fluctuations in the total values of imports, it is somewhat difficult to ascertain from the preceding table the relative importance of the various countries in the import trade of Australia in

successive years. A better idea of the proportion of imports supplied by each country during each year may be obtained from the following table of percentages:—

AUSTRALIAN IMPORTS.—PERCENTAGES FROM COUNTRIES OF ORIGIN.

(EXCLUDING GOLD BULLION, SPECIE AND IN MATTE.)

Country of Origin	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	per cent.	per cent.	per cent.	per cent.	per cent.
United Kingdom	43.35	43.62	41.50	43.55	41.49
British Possessions—					
Canada	5.03	5.80	6.60	6.85	7.22
Ceylon	1.24	1.13	1.18	1.14	0.80
India	5.05	3.60	3.35	3.36	2.76
Malaya (British)	0.56	0.80	0.60	0.96	0.92
New Zealand—	2.07	1.83	1.90	1.50	1.53
Pacific Islands—					
Nauru	0.50	0.41	0.44	0.43	0.50
Papua	0.16	0.17	0.16	0.22	0.15
Territory of New Guinea ..	0.12	0.12	0.14	0.22	0.17
Other Islands	0.42	0.49	0.53	0.68	0.39
Union of South Africa ..	0.23	0.25	0.35	0.28	0.26
Other British Possessions ..	0.94	0.72	0.88	0.81	0.96
Total, British Possessions..	16.32	15.32	16.13	16.45	15.66
Total, British Countries ..	59.67	58.94	57.63	60.00	57.15
Foreign Countries—					
Belgium	0.63	0.68	0.70	0.89	1.02
China	0.49	0.52	0.81	0.77	0.54
France	1.65	1.22	0.97	0.98	0.87
Germany	3.32	3.04	3.63	4.06	3.74
Italy	1.01	0.79	0.54	0.46	0.76
Japan	6.34	6.55	6.09	4.52	4.80
Netherlands	0.67	0.72	0.60	0.77	0.59
Netherlands East Indies ..	6.83	6.22	6.04	6.98	6.76
Norway	0.50	0.54	0.51	0.50	0.44
Pacific Islands	0.07	0.03	0.04	0.08	0.04
Philippine Islands	0.10	0.11	0.12	0.12	0.11
Sweden	1.35	1.17	1.19	1.18	1.39
Switzerland	0.78	0.66	0.74	0.68	0.78
United States of America ..	13.52	15.64	17.05	14.64	15.94
Other Foreign Countries ..	2.98	3.17	3.25	3.37	5.07
Total, Foreign Countries ..	40.33	41.06	42.37	40.00	42.85
Total	100	100	100	100	100

With the exception of the year 1936-37 the percentage of imports from British countries declined during the period covered by the table mainly as the result of the drop in the proportion from the United Kingdom which decreased from 43.35 per cent. of the total imports in 1933-34 to 41.49 per cent. in 1937-38. The percentage of imports from Canada consistently increased during the period and that from India likewise declined. New Zealand imports also declined in proportion during the period under review.

Of the foreign countries the United States increased its percentage from 13.52 to 15.94 during the five years and was mainly responsible for the increase in the ratio from foreign countries. Although not of large dimensions the imports from Belgium increased in proportion during each of the five years, while the relatively larger percentages from Germany and Netherlands East Indies remained fairly constant. The imports from Japan dropped from 6.34 per cent. of the total in 1933-34 to 4.80 per cent. in 1937-38, and the percentage of French imports declined considerably during the period.

Although imports from British countries, with the exception of Ceylon and the Pacific Islands, increased in value in 1937-38 as compared with 1936-37 the aggregate increase of £10,546,000 was less than the increase of £12,338,000 in the imports from foreign countries and the proportion of the total received from British sources declined from 60 per cent. to 57.15 per cent. With a few minor exceptions increases were general among foreign countries. The increase of £4,800,000 in the value of imports from the United States of America in 1937-38 was exceeded only by the United Kingdom with an increase of £7,667,000. Other large increases in value were Canada £1,973,000, Netherlands East Indies £1,354,000, Japan £1,345,000 and Germany £574,000, but the rate of increase for the United Kingdom, the Netherlands East Indies and Germany failed to keep pace with the rate of increase for all countries.

3. Direction of Exports.—The following table shows the value in Australian currency of commodity exports to the principal countries during the five years 1933-34 to 1937-38 inclusive :—

EXPORTS FROM AUSTRALIA TO VARIOUS COUNTRIES.

(EXCLUDING GOLD BULLION, SPECIE AND IN MATTE.)

Australian Currency Values.

Country of destination.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.(c)
	£ A.	£ A.	£ A.	£ A.	£ A.
United Kingdom	54,402,862	53,760,437	61,087,309	72,793,980	72,940,991
British Possessions—					
Canada	1,267,170	1,444,063	1,322,178	2,264,268	2,140,725
Ceylon	421,499	648,187	970,961	928,151	871,221
Fiji	320,707	361,132	483,998	592,325	713,192
Hong Kong	506,696	715,994	624,663	803,010	1,048,833
India	610,159	785,815	973,171	1,086,754	1,104,692
Malaya (British)	1,015,315	1,315,822	1,263,526	1,727,956	2,063,740
Mauritius	107,000	98,790	96,000	115,976	138,013
New Zealand	3,031,026	3,617,339	4,396,840	5,686,229	7,110,430
Papua	129,500	151,865	165,613	232,027	319,228
Union of South Africa	247,278	316,381	449,056	406,001	713,326
Other British Possessions	1,724,547	1,592,071	2,562,225	3,310,793	2,375,748
Total, British Possessions ..	9,380,897	11,047,459	13,308,231	17,153,580	18,599,148
Total, British Countries ..	63,783,759	64,807,896	74,395,540	89,947,560	91,540,139
Foreign Countries—					
Belgium	7,470,984	6,080,381	7,260,967	9,423,821	5,711,324
Chile and Peru	42,023	2,020	2,931	3,438	60,988
China	914,806	2,472,262	1,212,821	842,963	616,520
Manchuria including Kwantung Peninsula	(a)	1,613,775	810,815	142,427	190,747
Egypt	370,234	639,654	524,066	562,135	638,094
France	6,517,380	4,731,952	6,131,143	7,907,054	9,675,289
Germany	9,439,054	1,738,481	2,368,453	4,239,026	4,391,347
Italy	4,600,423	905,827	680,225	5,331,528	1,881,429
Japan	13,906,256	12,095,514	17,661,232	9,705,738	5,900,098
Netherlands	455,328	927,723	1,200,638	1,983,223	792,356
Netherlands East Indies	1,149,167	1,182,329	1,274,195	1,395,183	1,465,373
Norway	2,937	7,439	10,052	62,735	56,573
Pacific Islands (Foreign)	285,637	346,377	374,878	442,348	461,181
Philippine Islands	348,177	324,053	553,311	666,733	619,504
Soviet Union (Russia)	88,678	84,180	10,700	20,721	867,392
Spain	157,521	559,912	182,952	175,801	1,303
Sweden	250,898	240,751	264,918	344,687	472,657
United States of America	2,491,601	2,754,228	5,615,372	10,935,103	3,383,508
Other Foreign Countries	1,593,274	1,564,676	3,280,145	3,537,599	(b) 12,366,911
Total, Foreign Countries ..	50,084,378	38,361,543	49,457,814	57,722,263	49,552,594
Total	113,868,137	103,169,439	123,853,354	147,669,823	141,092,733

(a) Included with China. (b) Includes wheat "for orders". (c) Preliminary figures, subject to revision.

The comparison of the value of exports as shown in the above table is affected by two factors operating in opposite directions. The values have been depressed by prices, but have been increased by the fact that they are stated in Australian currency. In

1930-31 the recorded value of exports was increased by 17.4 per cent. by the depreciation of the currency and in subsequent years the increase from this cause amounted to 25½ per cent. Stated in sterling the value of exports of merchandise for 1937-38 was £111,822,559 against £140,057,756 in Australian currency. Up to the end of the year 1929-30 the two currencies had practically the same value.

4. **Percentage of Exports to Various Countries.**—In consequence of the fluctuations in the total values of exports, the relative importance of various countries as markets for Australian produce is shown more clearly by the following table of percentages.

EXPORTS FROM AUSTRALIA.—PERCENTAGES TO VARIOUS COUNTRIES.

(EXCLUDING GOLD BULLION, SPECIE AND IN MATTE.)

Country of destination.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	per cent.	per cent.	per cent.	per cent.	per cent.
United Kingdom	47.78	52.11	49.32	49.29	51.70
British Possessions—					
Canada	1.13	1.40	1.07	1.53	1.52
Ceylon	0.37	0.63	0.78	0.63	0.62
Fiji	0.28	0.35	0.39	0.40	0.50
Hong Kong	0.44	0.69	0.51	0.54	0.74
India	0.53	0.76	0.79	0.74	0.78
Malaya (British)	0.89	1.27	1.02	1.17	1.46
Mauritius	0.09	0.10	0.07	0.08	0.10
New Zealand	2.66	3.51	3.55	3.85	5.04
Papua	0.11	0.15	0.14	0.16	0.23
Union of South Africa	0.22	0.31	0.36	0.28	0.51
Other British Possessions	1.52	1.54	2.07	2.24	1.68
Total, British Possessions	8.24	10.71	10.75	11.62	13.18
Total, British Countries	56.02	62.82	60.07	60.91	64.88
Foreign Countries—					
Belgium	6.56	5.89	5.86	6.38	4.05
Chile and Peru	0.04	0.00	0.00	0.00	0.04
China	0.80	2.40	0.98	0.57	0.44
Manchuria, including Kwantung Peninsula	(a)	1.56	0.68	0.01	0.14
Egypt	0.33	0.62	0.42	0.38	0.45
France	5.72	4.59	4.95	5.35	6.86
Germany	8.29	1.69	1.91	2.87	3.11
Italy	4.04	0.97	0.56	3.61	1.33
Japan	12.21	11.72	14.26	6.57	4.18
Netherlands	0.40	0.90	0.97	1.34	0.56
Netherlands East Indies	1.01	1.15	1.03	0.95	1.04
Norway	0.00	0.01	0.01	0.04	0.04
Pacific Islands (Foreign)	0.25	0.33	0.30	0.30	0.33
Philippine Islands	0.31	0.31	0.45	0.45	0.44
Soviet Union (Russia)	0.08	0.08	0.01	0.01	0.61
Spain	0.14	0.54	0.15	0.12	0.00
Sweden	0.22	0.23	0.21	0.23	0.33
United States of America	2.18	2.67	4.53	7.51	2.40
Other Foreign Countries	1.40	1.52	2.65	2.40	8.77
Total, Foreign Countries	43.98	37.13	39.93	39.99	35.12
Total	100	100	100	100	100

(a) Included with China.

5. **Balance of Trade with Principal Countries.** In the following table a comparison is made in British currency values of the total Australian trade in merchandise (excluding bullion and specie) with principal countries during the years 1936-37 and 1937-38 :—

BALANCE OF AUSTRALIAN TRADE WITH PRINCIPAL COUNTRIES.

(EXCLUDING BULLION AND SPECIE.)

British Currency Values.

Country.	Imports from— (a)		Exports to—		Excess of Exports.	
	1936-37.	1937-38.(b)	1936-37.	1937-38.(b)	1936-37.	1937-38.
	£Stg.1,000.	£Stg.1,000.	£Stg.1,000.	£Stg.1,000.	£Stg.1,000.	£Stg.1,000.
United Kingdom	38,559	46,226	58,093	57,936	19,534	11,710
Canada	6,072	8,045	1,808	1,709	— 4,264	— 6,336
India	2,976	3,078	794	745	— 2,182	— 2,333
New Zealand	1,311	1,707	4,533	5,671	3,222	3,964
Other British Countries ..	4,157	4,567	6,059	6,215	1,902	1,648
Total, British Countries ..	53,075	63,623	71,287	72,276	18,212	8,653
Belgium	783	1,141	7,524	4,560	6,741	3,419
China	684	602	673	492	— 11	— 110
France	866	965	6,313	7,725	5,447	6,760
Germany	3,597	4,171	3,373	3,500	—	— 671
Italy	410	845	4,257	1,502	3,847	657
Japan	4,004	5,349	7,749	4,711	3,745	— 638
Netherlands East Indies ..	4,276	7,531	1,111	1,169	— 5,065	— 6,362
United States of America ..	12,959	17,759	8,727	2,695	4,232	— 15,064
Other Foreign Countries ..	5,932	9,386	6,272	13,192	340	3,806
Total, Foreign Countries ..	35,411	47,749	46,002	39,516	10,591	— 8,203

(a) *Excluding outside packages.*(b) *Preliminary figures, subject to revision.*

The balance of trade with single countries is of little significance, since in the first place, there is still a fair proportion of Australian produce distributed through the United Kingdom either immediately, by transshipment or re-sale, or ultimately, by incorporation in manufactures. Further, in very many cases international balances are equated directly by services or indirectly by exchange of goods between several countries.

6. *Principal Imports and Exports. Countries.*—The total value of imports from and exports to each of the more important British and foreign countries during 1936-37, together with brief particulars of the principal commodities interchanged with such countries, is given hereunder. The values of imports are shown in British currency, while the exports are shown in Australian currency. Should further details be required, reference may be made to the annual publication, *Oversea Trade Bulletin*, No. 35, issued by this Bureau, which gives details of the trade with Australia of 37 of the principal countries of the world during the past five years. That publication furnishes information regarding the country of origin of each statistical item of import for the years 1936-37, and 1937-38, showing the value and (where available) the quantity imported from each country, and the value of each item imported into each of the States. The publication referred to also gives the country to which each item of exports was shipped during these years.

United Kingdom.—*Total Imports of United Kingdom Origin.* £35,500,402. The two outstanding classes of goods imported were—Machines, machinery and manufactures of metal, £16,142,408; and apparel, textiles, yarns, etc., £11,071,231. Imports of the following goods also contributed largely to the total:—Paper and stationery, £3,012,350; drugs and chemicals, £1,880,665; earthenware, crockery, glass, etc., £1,401,120; spirituous liquors, £537,672; optical, surgical and scientific instruments, £117,478; paints and varnishes, £363,135; foodstuffs of animal origin, £281,017; jewellery and fancy goods, £243,601; rubber and leather manufactures, £241,252; stones and minerals, £100,200; and vegetable substances and fibres, £187,974.

Total Exports to United Kingdom, £78,827,386. Of this total, £78,473,677 represented Australian produce. The principal items of export were—Wool, £23,039,457; wheat, £11,506,127; butter, £8,059,302; gold, £6,933,406; mutton and lamb, frozen, £5,136,911; lead, pig, £4,539,805; beef, frozen and chilled, £2,755,883; sugar, £2,421,705; hides and skins, £1,867,728; flour, £1,760,006; fruits, fresh, £1,433,872; fruits, dried, £1,217,686; frozen meats, other, £1,152,042; eggs, £968,292; wine, £952,145; zinc concentrates, £859,379; fruits in liquid, £805,400.

Canada. Total Imports of Canadian Origin, £6,071,813. The principal imports were—Paper, £1,479,892; motor chassis and parts, £1,409,881; timber, £827,277; machines and machinery, £520,365; fish, preserved in tins, £406,076; apparel and textiles, £312,306; vehicles (excluding motor), £137,705; tools of trade, £132,453; drugs and chemicals, £101,784; sensitized films, £88,440; hides and skins, £69,933; and clocks and watches, £56,316.

Total Exports to Canada, £2,264,268. Of this total, £1,316,646 was Australian produce. The principal items were—Wool, £733,068; fruits, dried, £577,443; sugar, £450,918; fruits, preserved, £89,480; tallow, £82,234; hides and skins, £77,704; rags and clippings, £50,186; spirituous liquors, £40,290; and gelatine and glue, £35,194.

Ceylon. Total Imports of Ceylon Origin, £1,010,374. The principal items were—Tea, £744,873; rubber, £228,016; and cocoa beans and shells, raw, £12,549.

Total Exports to Ceylon, £928,151. Of this total, £923,804 was Australian produce. The principal items were—Silver, £454,060; flour, £172,091; milk and cream, £60,543; wheat, £47,902; fruits, £40,490; meats, £40,301; and butter, £35,958.

Fiji. Total Imports of Fijian Origin, £254,753; include gold, £148,952; copra, £76,370; molasses, £19,084; hides, £4,277; and gums and resins, £2,565.

Total Exports to Fiji, £502,325. Of this total, £503,463 was Australian produce. The principal items were—Machinery and metal manufactures, £147,162; bran and pollard, £66,127; flour, £46,668; tobacco, £42,758; drugs and chemicals, £30,150; spirituous liquors, £23,983; oils, in bulk, £22,557; coal, £19,249; apparel and attire, £18,296; timber, £14,903; tea, £11,826; and paints and varnishes, £9,941.

Hong Kong. Total Imports of Hong Kong Origin, £40,143. The principal items were—Lamps and lampware, £10,575; ginger, £10,025; fireworks, £6,384; bamboo and cane, £4,396; and tung oil, £2,424.

Total Exports to Hong Kong, £803,010. Of this total, £801,878 was Australian produce. The principal exports were—Flour, £309,141; leather, £70,123; sandalwood, £63,344; butter, £47,130; wheat, £44,825; meats, £37,803; milk and cream, £21,229; fruits, fresh, £14,557; oatmeal, wheatmeal, etc., £13,379; béche-de-mer, £8,701; jams and jellies, £8,271; lead, pig, £8,005; and cheese, £7,657.

India. Total Imports of Indian Origin, £2,975,892. The principal items were—Bags and sacks, £1,640,246; hessians, £376,214; linseed, £254,489; tea, £149,665; hides and skins, £140,692; cotton, raw, £71,025; mats and matting, £34,299; jute, £32,176; nuts, edible, £30,492; gums and resins, £29,303.

Total Exports to India, £1,086,754. Of this total, £1,083,563 was Australian produce. The principal exports were—Zinc bars, blocks, etc. £384,047; wool, £178,729; tallow, £110,136; silver, £92,402; horses, £80,330; coal, £23,818; jams and jellies, £21,789; butter, £19,539; meats, £17,654; and flour, £12,461.

Malaya (British). Total Imports of Malayan (British) Origin, £853,991. The principal items were—Rubber (crude), £725,528; latex, £35,704; sago and tapioca, £33,129; spices (unground), £28,451; and gums and resins, £5,444.

Total Exports to Malaya (British), £1,727,056. Of this total, £1,690,051 was Australian produce. The principal items were—Flour, £656,717; milk and cream, £436,931; meats, £102,083; butter, £98,502; metals and machinery, £93,533; spirituous liquors, £67,510; fruits, £51,178; sheep, £27,593; drugs and chemicals, £21,494; leather, £17,923; soap, £14,497; and lard and refined animal fats, £13,841.

New Zealand. Total Imports of New Zealand Origin. £1,542,831. The principal imports were—Gold, £219,956; timber, £198,489; hides and skins, £190,557; fish, £187,206; wool, £182,938; horses, £92,427; flax and hemp, £87,881; seeds, £77,483; beans and peas, £43,332; and drugs and chemicals, £40,405.

Total Exports to New Zealand, £5,686,229, of which £5,070,787 was Australian produce. The principal items were—Machinery and metal manufactures, £1,806,558; apparel and textiles, £607,724; drugs and chemicals, £355,851; timber, £325,322; grain and pulse, £234,111; fruits, dried, £229,257; paper and stationery, £221,723; optical, surgical and scientific instruments, £206,785; fruits, fresh, £187,551; rubber and leather, £167,472; earthenware, china, glass, etc., £135,547; paints and varnishes, £130,286; coal, £110,130; fruits in liquid, £100,665; tobacco, £90,368; and seeds, £62,416.

Papua. Total Imports of Papuan Origin, £281,188. The principal items were—Rubber, £103,298; gold, bar, dust, etc., £89,446; coconuts (prepared), £49,456; copra, £24,498; and coffee, raw, £6,245.

Total Exports to Papua, £232,027, of which £154,859 was Australian produce. The principal exports were—Machines and machinery, £34,952; tobacco, £27,647; manufactures of metal, £23,884; meats, £13,509; grain and pulse, £12,371; oils, in bulk, £10,350; apparel and textiles, £8,864; and spirituous liquors, £6,474.

Territory of New Guinea. Total Imports of Territory of New Guinea Origin, £1,733,925. The principal items were—Gold bar, dust, etc., £1,537,990; copra, £112,635; coconuts (prepared), £55,575; and silver bar, ingot, etc., £10,215.

Total Exports to Territory of New Guinea, £790,684, of which £544,875 was Australian produce. The principal exports were—Manufactures of metal, £94,123; machines and machinery, £69,632; cinematographs and films, £68,047; meats, £67,513; oils, in bulk, £61,434; foodstuffs, vegetable origin, £58,702; silver specie, £54,774; tobacco, £50,517; spirituous liquors, £40,869; drugs and chemicals, £23,056; apparel and textiles, £19,539; and paper and stationery, £11,913.

Union of South Africa. Total Imports of Union of South African Origin, £250,539. The principal items were—Diamonds, £92,600; asbestos (crude), £56,472; fish, £37,526; fibres, £10,606; feathers, £7,726; tanning substances, £7,301; and tobacco, £5,080.

Total Exports to Union of South Africa, £406,091, of which £391,789 was Australian produce. The principal exports were—Timber, £107,003; machinery and metal manufactures, £89,049; apparel and textiles, £58,755; gelatine and glue, £18,454; sporting materials, £15,432; fruits, £14,461; leather, £11,491; drugs and chemicals, £10,292; horses, £8,985; grain and pulse, £8,341; and wood and wicker manufactures, £7,367.

Belgium. Total Imports of Belgian Origin. £783,393. The principal items were—Glass and glassware, £201,386; piece goods, other £118,242; piece goods, velvet, £91,887; machinery and metal manufactures, £73,722; carpets and carpeting, £60,663; precious stones, £58,092; gloves, £52,082; paper and stationery, £26,165; arms, ammunition, etc., £17,382; drugs and chemicals, £13,863.

Total Exports to Belgium, £9,423,821. Of this total, £9,410,657 was Australian produce. The principal exports were—Wool, £8,280,620; silver and silver lead concentrates, £440,282; wheat, £172,002; hides and skins, £155,164; barley, £81,679; tin concentrates, £62,768; copper, £30,960; tallow, £32,035; fruits, fresh, £16,582; fodders, £14,868; meats, £11,581; silver and silver lead ores, £10,901; and zinc concentrates, £9,588.

China. *Total Imports of Chinese Origin*, £683,742. The principal items were—Apparel and textiles, £160,328; linseed, £100,184; silk, raw, £78,791; tung, etc., oil, £68,588; bristles, etc., £54,081; tea, £43,318; nuts (edible), £34,964; ginger, £16,102; hides and skins, £13,941; cotton, raw, £13,834; rice, £9,577; drugs and chemicals, £8,903; and feathers, £6,719.

Total Exports to China, £842,963, of which £832,970 was Australian produce. The principal items were—Wheat, £319,096; wool, £152,719; railway sleepers, £105,242; butter, £55,124; milk and cream, £51,234; sandalwood, £34,426; flour, £23,299; leather, £15,578; tallow, £10,165; hides and skins, £8,931; vessels (ships), £7,750; timber, £7,161; fruits, £5,215; and stearine, £4,159.

Czechoslovakia. *Total Imports of Czechoslovakian Origin*, £467,107. The principal items were—Apparel, £130,770; glass and glassware, £90,149; jewellery, £52,608; manufactures of metal, £39,455; textiles, £37,273; paper and stationery, £20,191; fancy goods, £16,065; and machines and machinery, £12,895.

Total Exports to Czechoslovakia, £1,127,018, of which £1,126,636 was Australian produce. The principal export was wool, £1,121,920.

Egypt. *Total Imports of Egyptian Origin*, £9,794. The principal items were—Cigarette tubes and papers, £5,870; and gums and resins, £1,416.

Total Exports to Egypt, £562,135, of which £560,437 was Australian produce. The principal exports were—Flour, £326,560; frozen beef, £89,041; butter, £44,199; timber, £25,735; other meats, £16,214; and hides and skins, cattle, £14,448.

France. *Total Imports of French Origin*, £865,919. The principal items were—Argol, £120,553; apparel, £103,351; olive oil, £73,200; paper and stationery, £57,158; piece goods, velvet, £56,133; spirituous liquors, £53,024; gums and resins, £44,318; machinery and metal manufactures, £42,731; piece goods, silk, £38,004; lace for attire, £27,925; jewellery and fancy goods, £26,891; fertilizers, £21,055; perfumery and toilet preparations, £18,192; foodstuffs, vegetable origin, £18,120; earthenware, glass, etc., £13,862; medicines, £12,719; and perfumed spirits, £10,585.

Total Exports to France, £7,032,789. Of this total, £7,008,441 was Australian produce. The principal exports were—Wool, £5,452,623; sheepskins, £2,150,077; wheat, £180,552; gold, £25,735; hides and skins, cattle, £23,207; tallow, £10,174; and horns, £10,062.

Germany. *Total Imports of German Origin*, £3,500,584. The principal items were—Machinery, £874,585; drugs and chemicals, £400,370; manufactures of metal, £470,472; paper and stationery, £234,760; optical and scientific instruments, £190,508; earthenware, china, glassware, etc., £107,352; gloves, £144,375; piece goods, silk, £144,351; timepieces, £82,297; jewellery and fancy goods, £71,188; piece goods, other than silk, £70,915; trimmings and ornaments, £66,022; bags, baskets, etc., £62,257; musical instruments, £60,784; textiles, excluding piece goods, £50,504; and oils in bulk, £46,774.

Total Exports to Germany, £4,230,026, of which £4,212,028 was Australian produce. The principal exports were—Wool, £3,514,108; wheat, £211,085; hides and skins, £207,415; apples, fresh, £68,227; oats and concentrates, £80,005; drugs and chemicals £35,480; tallow, £33,719.

Italy. *Total Imports of Italian Origin*, £410,002. The principal imports were—Sulphur, £75,744; yarns, artificial silk, £68,095; gloves, £30,173; nuts (edible), £27,935; oils, essential, £24,716; textiles, other than piece goods, £23,014; piece goods, silk, £20,170; machinery and metal manufactures, £17,017; olive oil, £16,265; quicksilver, £14,131; vegetable substances and fibres, £10,362; and argol, £6,308.

Total Exports to Italy, £5,331,528, of which £5,318,789 was Australian produce. The principal exports were—Wheat, £3,670,138; wool, £2,594,586; hides and skins, £37,670; and tallow, £4,981.

Japan. *Total Imports of Japanese Origin*, £4,004,465. The principal imports were—Piecegoods, silk or containing silk, £1,289,110; piecegoods, cotton and linen, £543,102; silk, raw, £390,700; machinery and metal manufactures, £248,435; jewellery and fancy goods, £197,994; apparel, £169,050; textiles, other than piecegoods, £155,949; piecegoods, other, £133,084; crockery and household ware, £127,537; sulphur, £83,160; paper and stationery, £82,581; fish, £49,688; yarns, £48,980; and rubber manufactures, £41,191.

Total Exports to Japan, £9,705,738. Of this total, £9,054,550 was Australian produce. The principal exports were—Wool, £7,513,956; wheat, £679,266; zinc, bars, blocks, etc., £533,106; iron and steel, scrap, £217,021; hides and skins, £150,899; lead, pig, £129,158; iron ore, £103,974; barley, £64,930; trochus shell, £58,515; foodstuffs, animal origin, £54,781; tallow, £32,434; and metals, other scrap, £28,822.

Netherlands. *Total Imports of Netherlands Origin*, £679,192. The principal items were—Electrical machinery and appliances, £151,944; yarns, artificial silk, £139,389; caramel, cocoa butter, etc., £60,014; sausage casings, £33,567; machinery, other than electrical, £33,360; lamps and lampware, £33,018; piecegoods, £28,395; precious stones, £26,611; paper, £21,142; wire, £16,346; and gin, £15,021.

Total Exports to Netherlands, £1,983,223, of which £1,949,370 was Australian produce. The principal items were—Wheat, £973,183; wool, £754,860; hides and skins, £86,172; flour, £55,473; tallow, £33,106; fruits, fresh, £29,622; and machinery and metal manufactures, £15,536.

Netherlands East Indies. *Total Imports of Netherlands East Indies Origin*, £6,176,385. The principal imports were—Petroleum spirit, £2,685,022; tea, £1,489,968; residual oil, £446,461; kerosene, £405,596; petroleum (crude), £332,723; rubber (crude), £254,095; kapok, £216,456; flax and hemp, £128,570; other oils, £54,362; tobacco, £37,027; and waxes, £31,850.

Total Exports to Netherlands East Indies, £1,395,183. Of this total, £1,370,767 was Australian produce. The principal exports were—Flour, £741,636; butter, £311,788; meats, £46,536; leather, £39,652; biscuits, £32,683; fruits, fresh, £27,401; machinery and metal manufactures, £23,190; coal, £19,471; malt, £17,763; and medicines, £15,275.

Norway. *Total Imports of Norwegian Origin*, £440,817. The principal items were—Fish, preserved in tins, £118,608; paper, writing and typewriting, £70,126; manufactures of metal, £47,511; paper, printing, £41,897; timber, dressed, £40,973; paper, other, £33,189; paper, wrapping, £27,479; wood pulp, £15,377; and oils in bulk, £5,451.

Total Exports to Norway, £62,735, of which £50,656 was Australian produce. The principal exports were—Wheat, £50,062; wool, £7,248; and apples, fresh, £1,445.

Pacific Islands (British and Foreign.) *Total Imports of Pacific Islands Origin*, £3,216,190. The principal imports were—Gold, £1,776,388; rock phosphates, £713,109; copra, £345,181; coconuts (prepared), £105,031; rubber (crude), £103,298; hides and skins, £31,274; shells, £26,936; molasses, £19,081; vanilla beans, £13,256; silver, £12,437; and wool, £9,538.

Total Exports to Pacific Islands, £2,464,526. Of this total, £1,868,048 was Australian produce. The principal exports were—Manufactures of metal, £226,687; machinery, £219,977; flour, £181,339; tobacco and preparations, £166,638; oils, fats, and waxes, £152,416; meats, £128,807; coal, £93,286; spirituous liquors, £91,462; cinematographs and films, £85,589; silver, £84,914; apparel and textiles, £82,141; drugs and chemicals, £73,164; bran, pollard and sharps, £70,676; timber, £47,129; biscuits, £46,386; tea, £31,291; milk and cream, £30,783; paints and varnishes, £28,941; butter, £27,702; coke, £27,706; vegetables, £27,108; earthenware, china, cements, etc., £26,335; rubber and leather, £25,358; paper and stationery, £24,154; and arms, ammunition and explosives, £22,664.

Philippine Islands. *Total Imports of Philippine Islands Origin, £110,231.* The principal items were—Hemp, £76,636; timber, £25,242; and hoods for hats, £4,682.

Total Exports to Philippine Islands, £666,733. Of this total, £665,942 was Australian produce. The principal exports were—Flour, £346,083; milk and cream, £92,842; meats, £65,836; butter, £54,249; coal, £36,138; and carbide, calcium, £7,398.

Poland. *Total Imports of Polish Origin, £27,367.* The principal items were—Timber, £7,585; seeds, £4,036; machines and metal manufactures, £3,659; and pitch and tar, £3,495.

Total Exports to Poland, £916,597. The principal items were—Wool, £914,282; and sheep skins, £1,630.

Soviet Union (Russia). *Total Imports of Soviet Union (Russia) Origin, £120,338.* The principal items were—Fish, £32,583; furs, dressed, £27,514; hides and skins, £20,978; flax, £18,074; and oils in bulk, £10,798.

Total Exports to Soviet Union (Russia), £20,721. The principal items were—cattle hides, £15,394; and wool, £5,237.

Spain. *Total Imports of Spanish Origin, £155,593.* The principal items were—Corks, etc., £73,425; nuts, edible, £17,663; olive oil, £10,068; wine, £7,083; quicksilver, £6,111; liquorice, £5,939; and dry colours, £5,637.

Total Exports to Spain, £175,801. The principal item was—Wheat, £172,203.

Sweden. *Total Imports of Swedish Origin, £1,048,655.* The principal imports were—Machines and machinery, £241,837; pulp for paper making, £231,458; paper, other, £128,577; paper, wrapping, £93,865; timber and manufactures of wood, £86,280; manufactures of metal, £82,388; vacuum cleaners, £70,400; and paper boards, £48,483.

Total Exports to Sweden, £344,687. The principal exports were—Wool, £246,071; apples, fresh, £36,059; and hides, cattle, £29,170.

Switzerland. *Total Imports of Swiss Origin, £600,025.* The principal imports were—Clocks and watches, £194,381; machinery and metal manufactures, £115,755; grass straw for hats, £50,187; piece goods, silk, £54,302; apparel and attire, £53,281; drugs and chemicals, £30,184; handkerchiefs, £24,204; and piecegoods, cotton and linen, £15,053.

Total Exports to Switzerland, £184,669. The principal exports were—Wool, £176,501; and timepieces and fancy goods, £4,697.

United States of America. *Total Imports of United States Origin, £12,959,343.* The principal imports were—Motor cars and parts, £2,226,171; tobacco, unmanufactured, £1,548,211; motive power machinery, £1,460,926; petroleum spirit, £1,139,677; machinery, other, £753,460; lubricating (mineral) oil, £604,087; electrical machinery and appliances, £498,818; drugs and chemicals, £365,880; paper and stationery, £318,546; films, £306,015; wood and wicker, £260,325; sausage casings, £218,780; sulphur, £201,203; optical, etc., instruments, £180,587; tools of trade, £178,055; metal working machinery, £146,934; paints and varnishes, £134,702; adding and computing machines, £126,393; apparel and textiles, £119,571; printing machinery, £113,035; kerosene, £112,671; and gums and resins, £110,748.

Total Exports to the United States of America, £18,763,152. Of this total £16,661,660 was Australian produce. The principal exports were—Gold, £7,828,049; wool, £7,039,771; rabbit and hare skins, £1,429,038; other hides and skins, £918,886; concentrates, £371,737; sausage casings, £274,071; pearlshell, £237,467; tallow, £142,898; ores, £112,941; and machinery and metal manufactures, £110,356.

§ 7. Trade with Eastern Countries.

1. **Principal Articles Exported.**—The following table shows the value of exports of Australian and other produce from Australia to Eastern countries during the last five years. The countries concerned in this trade are Borneo (British), Burma, Ceylon, China, French Indo China, Hong Kong, India, Japan, Korea, Kwantung Peninsula, Malaya (British), Manchuria, Netherlands East Indies, Philippine Islands, Siam, Timor (Portuguese), and French and Portuguese Possessions in India. After declining sharply in 1933-34 the export trade with eastern countries rose substantially in the next two years with increased shipments of wool, wheat, flour and minerals; the exports in 1935-36 were valued at £25,532,518, which was the highest figure recorded since 1928-29. In 1936-37 the value of exports to eastern countries decreased by more than £8 million largely as the result of the heavy reduction in the purchases of wool by Japan; wheat shipments to Japan and China also declined in value by nearly £2 million during the year. The value of exports decreased still further in 1937-38 and again a decline in the purchase of wool by Japan coupled with the recession in wool values was the principal contributing factor.

TOTAL EXPORTS FROM AUSTRALIA TO EASTERN COUNTRIES.

Article.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.(b)
	£ A.	£ A.	£ A.	£ A.	£ A.
Biscuits	37,815	39,767	35,682	41,114	34,001
Butter	486,878	544,215	657,264	640,544	622,195
Cheese	18,526	22,012	25,538	39,647	39,014
Coal	83,674	74,978	81,907	94,821	149,964
Fruits—					
Fresh	110,555	122,628	124,550	155,093	170,947
Dried and Preserved	51,381	42,081	40,073	43,116	46,421
Grain and pulse—					
Wheat	1,307,770	4,395,925	2,910,229	1,105,648	935,842
Flour	1,744,820	3,304,000	2,780,659	2,582,600	3,090,681
Other (prepared and unprepared)	75,014	60,306	71,708	120,050	101,585
Hay, chaff, and compressed fodder	12,285	16,014	16,187	25,111	13,553
Horses	63,357	102,586	105,905	126,518	97,525
Infants' and Invalids' Food	106,033	216,571	211,287	145,306	171,427
Iron Ore	4,072	140,535	158,064	103,974	48,614
Iron and Steel (scrap)	76,045	137,934	115,665	217,112	214,463
Jams and Jellies	39,265	42,328	42,688	49,178	46,143
Lard and Refined Animal Fats	21,764	28,432	35,046	40,738	34,432
Lead, Pig	33,585	51,084	38,614	138,237	80,206
Leather	140,733	141,907	107,944	173,761	181,723
Meats—					
Bacon and Hams	79,293	84,120	91,423	92,952	95,437
Other meats	202,714	214,182	244,439	253,450	322,298
Milk and Cream	667,229	456,108	455,420	611,021	662,234
Pearlshell and trochus shell	41,599	46,737	53,066	59,696	37,878
Sandalwood	114,301	108,600	66,845	106,448	36,676
Skins, hoofs, horns, bones, and sinews	72,203	135,846	162,711	188,803	339,223
Tallow (unrefined)	253,232	206,947	237,484	174,081	218,591
Timber (undressed)	66,973	180,084	85,101	148,753	143,690
Wool	12,249,581	8,785,163	14,767,219	7,860,278	4,367,877
Zinc—					
Bars, blocks, ingots, etc.	246,068	303,282	528,032	937,474	390,939
Concentrates	18,007				
Other merchandise	420,720	695,050	614,038	654,608	898,231
Total merchandise	18,876,572	20,790,602	24,882,561	16,039,032	13,591,810
Specie, and gold and silver bullion	102,672	475,864	649,957	546,473	610,518
Total Exports	18,979,244	21,266,466	25,532,518	16,585,505	14,202,328

(a) Australian currency value. Estimated British currency value—1933-34, £ stg. 15,153,089; 1934-35, £ stg. 16,979,978; 1935-36, £ stg. 20,386,200; 1936-37, £ stg. 13,060,483; 1937-38, £ stg. 11,339,184.
 (b) Preliminary figures, subject to revision.

2. *Destination of Exports of Merchandise.*—The next table shows the destination of merchandise exported to Eastern countries during the five years ended 1937-38 :—

EXPORTS OF MERCHANDISE FROM AUSTRALIA TO EASTERN COUNTRIES.

Country of Destination.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.(c)
	£ A.	£ A.	£ A.	£ A.	£ A.
China	914,806	2,472,262	1,212,821	842,963	616,520
Hong Kong	506,596	715,994	624,663	803,010	1,048,833
India and Ceylon	928,986	961,832	1,301,206	1,468,432	1,371,860
Japan	13,906,256	12,095,514	17,661,232	9,705,738	5,900,098
Malaya (British)	1,015,315	1,315,822	1,263,526	1,727,956	2,063,740
Manchuria including Kwantung Peninsula	(a)	1,613,775	839,815	142,427	190,747
Netherlands East Indies	1,149,167	1,182,329	1,274,195	1,395,183	1,464,379
Philippine Islands	348,177	324,053	553,311	666,733	679,504
Siam	71,356	58,660	100,950	118,291	117,382
Other Eastern Countries	35,913	50,361	50,833	68,209	198,747
Total	618,876,572	620,790,602	624,882,561	616,939,032	613,591,810

(a) Included with China. (b) Australian currency value. Estimated British currency value, 1933-34, £ stg. 15,071,115; 1934-35, £ stg. 16,630,285; 1935-36, £ stg. 19,866,316; 1936-37, £ stg. 13,524,177; 1937-38, £ stg. 10,851,748. (c) Preliminary figures, subject to revision.

3. *Imports of Merchandise from Eastern Countries.*—The values of imports into Australia from Eastern countries during the last five years are shown in the following table. The principal commodities imported in 1937-38, according to the countries of origin, were :—Ceylon—Tea, £680,085; India—Bags, Sacks and Hessians, £1,064,208; Japan—Silk Piece goods, £1,510,064; Cotton and Linen Piece goods, £1,021,677; Netherlands East Indies—Tea, £1,564,387; Petroleum Spirit, £3,608,691; Petroleum, crude, £300,728; Kerosene, £572,434; Residual Oil, £650,093.

IMPORTS OF MERCHANDISE INTO AUSTRALIA FROM EASTERN COUNTRIES.

British Currency Values.

Country of Origin.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.(b)
	£ stg.	£ stg.	£ stg.	£ stg.	£ stg.
China	285,514	364,127	657,178	683,742	601,870
Hong Kong	18,436	22,677	26,713	40,143	37,022
India and Ceylon	3,643,250	3,336,684	3,692,869	3,986,266	3,967,902
Japan	3,676,737	4,624,740	4,960,571	4,004,465	5,349,087
Malaya (British)	328,720	561,845	488,254	852,282	1,022,899
Manchuria including Kwantung Peninsula	(a)	3,906	8,156	20,853	16,106
Netherlands East Indies	3,960,233	4,390,327	4,928,025	6,176,385	7,530,509
Philippine Islands	59,733	79,885	92,619	110,231	123,466
Siam	1,822	1,879	6,403	2,609	6,870
Other Eastern Countries	37,781	74,423	83,993	42,039	163,726
Total	12,012,226	13,460,493	14,953,781	15,919,015	18,810,457

(a) Included with China. (b) Preliminary figures, subject to revision.

By comparison with footnote (b) of the previous table, the balance of trade with Eastern countries can be ascertained and shows an excess of exports from Australia during the first three years with the position reversed for the remaining years.

§ 8. Classified Summary of Australian Oversea Trade.

1. **Imports.**—The following table shows the value of imports into Australia during each of the last five years, arranged in accordance with the statistical classification which came into operation on 1st July, 1922 :—

IMPORTS TO AUSTRALIA.—CLASSES.

British Currency Values.

Classes.	1933-34.	1934-35	1935-36.	1936-37.	1937-38.(a)
	£ stg.	£ stg.	£ stg.	£ stg.	£ stg.
I. Animal foodstuffs, etc. . .	942,686	1,247,745	1,412,896	1,509,813	1,565,765
II. Vegetable foodstuffs; non-alcoholic beverages, etc. . .	3,141,432	3,166,140	3,215,246	3,801,644	3,768,619
III. Alcoholic liquors, etc. . .	554,474	637,003	690,103	633,133	727,229
IV. Tobacco, etc. . .	718,282	1,342,796	1,014,226	1,717,677	2,011,004
V. Live animals. . .	94,670	163,058	168,069	216,943	193,500
VI. Animal substances, etc. . .	1,193,026	1,099,893	1,488,143	1,465,533	2,260,898
VII. Vegetable substances, etc. . .	1,492,848	1,901,807	2,256,452	2,884,357	3,194,512
VIII. Apparel, textiles, etc. . .	15,994,503	17,735,864	17,292,354	18,059,604	21,016,945
IX. Oils, fats, and waxes . .	5,274,015	5,334,793	6,690,852	7,634,360	9,429,257
X. Paints and varnishes . .	353,557	445,261	490,591	576,360	590,454
XI. Stones and minerals, etc. .	398,942	507,785	601,533	551,967	806,815
XII. Metals, metal manufactures, and machinery . .	13,049,596	19,301,432	25,206,625	27,277,464	37,280,008
XIII. Rubber and leather, etc. .	743,636	1,000,557	1,185,812	1,831,914	1,915,442
XIV. Wood and wicker, etc. . .	1,493,049	1,847,866	1,934,955	1,787,427	2,759,081
XV. Earthenware, etc. . .	1,018,224	1,380,865	1,690,283	1,774,183	2,047,362
XVI. Paper and stationery . .	4,304,303	4,764,188	5,295,820	5,933,131	6,609,600
XVII. Jewellery, etc. . .	749,002	1,008,450	1,194,566	1,256,235	1,581,455
XVIII. Optical, surgical, and scientific instruments . .	987,369	1,074,500	1,218,299	1,284,653	1,558,483
XIX. Drugs, chemicals, etc. . .	3,384,857	3,537,218	4,703,127	4,515,446	5,304,092
XX. Miscellaneous . .	3,635,678	4,893,726	5,498,379	5,879,736	7,112,733
XXI. Gold and silver, and bronze specie . .	1,278,117	1,698,489	1,731,127	2,048,882	2,241,866
Total . .	60,712,926	74,119,496	85,252,458	92,640,462	113,075,060

(a) Preliminary figures, subject to revision.

2. **Exports.**—In the following table the exports from Australia are shown in classes according to the same classification as for imports, distinguishing (A) Australian produce; (B) Other produce (re-exports); and (C) Total exports.

EXPORTS FROM AUSTRALIA.—CLASSES.

Australian Currency Values.

Classes.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.(b)
	£ A.	£ A.	£ A.	£ A.	£ A.
I. Animal foodstuffs, etc. . .	17,339,929	20,715,328	20,584,170	21,381,880	24,955,260
II. Vegetable foodstuffs; non-alcoholic beverages, etc. . .	21,285,172	25,044,405	26,046,171	33,937,941	39,144,522
III. Alcoholic liquors, etc. . .	916,100	950,242	1,079,964	1,220,456	1,152,619
IV. Tobacco, etc. . .	125,563	117,975	156,600	193,911	206,528
V. Live animals . .	130,864	181,564	179,015	227,233	217,373
VI. Animal substances, etc. . .	61,884,960	43,163,366	58,505,775	70,350,089	53,741,172
VII. Vegetable substances, etc. . .	296,684	320,181	260,143	407,607	328,675
VIII. Apparel, textiles, etc. . .	328,794	381,752	375,088	534,373	582,009
IX. Oils, fats, and waxes . .	551,520	1,012,958	772,791	970,370	784,601
X. Paints and varnishes . .	68,954	98,298	119,681	155,865	187,043
XI. Stones and minerals, etc. .	1,166,453	1,391,904	1,807,966	2,486,329	3,305,551
XII. Metals, metal manufactures, and machinery . .	4,706,797	4,752,582	6,811,780	8,984,355	8,974,667
XIII. Rubber and leather, etc. .	701,490	582,244	741,296	1,010,781	834,347
XIV. Wood and wicker, etc. . .	608,579	883,796	963,382	1,052,396	1,302,766
XV. Earthenware, etc. . .	103,576	137,303	175,360	160,010	191,816
XVI. Paper and stationery . .	149,311	175,663	210,011	247,136	300,098
XVII. Jewellery, etc. . .	93,568	90,021	91,669	120,327	133,625
XVIII. Optical, surgical, and scientific instruments . .	103,495	123,912	119,168	157,166	151,334
XIX. Drugs, chemicals, etc. . .	459,332	546,971	573,029	773,110	760,727
XX. Miscellaneous . .	453,174	548,052	727,202	732,288	809,749
XXI. Gold and silver, and bronze specie . .	9,174,601	8,694,612	11,700,284	12,195,809	14,930,762
Total . .	120,651,925	109,913,129	132,946,445	157,599,750	153,048,294
	(a)	(a)		(a)	(a)

(a) Estimated British currency value, 1933-34, £ stg. 66,343,293; 1934-35, £ stg. 87,768,914; 1935-36, £ stg. 106,187,776; 1936-37, £ stg. 128,880,409; 1937-38, £ stg. 122,210,991. (b) Preliminary figures, subject to revision.

EXPORTS FROM AUSTRALIA.—CLASSES—*continued.*

Classes.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.(b)
B. OTHER PRODUCE.—RE-EXPORTS.					
<i>Australian Currency Values.</i>					
I. Animal foodstuffs, etc. ..	£ A. 8,701	£ A. 11,442	£ A. 12,778	£ A. 19,036	£ A. 20,813
II. Vegetable foodstuffs; non-alcoholic beverages, etc. ..	72,881	69,706	62,904	68,814	75,378
III. Alcoholic liquors, etc. ..	40,121	21,989	30,096	33,656	31,927
IV. Tobacco, etc. ..	55,204	54,464	72,149	69,693	74,399
V. Live animals ..	13,918	12,855	30,461	23,469	31,040
VI. Animal substances, etc. ..	20,808	16,628	26,145	30,066	33,002
VII. Vegetable substances, etc. ..	4,806	6,204	5,264	15,979	11,292
VIII. Apparel, textiles, etc. ..	217,388	195,189	228,714	320,472	203,104
IX. Oils, fats, and waxes ..	42,505	37,371	87,489	162,530	164,253
X. Paints and varnishes ..	5,448	2,830	4,005	6,316	4,844
XI. Stones and minerals, etc. ..	1,299	878	1,475	1,763	3,938
XII. Metals, metal manufactures, and machinery ..	325,914	377,533	435,380	481,294	547,244
XIII. Rubber and leather, etc. ..	7,974	5,527	4,983	15,029	7,695
XIV. Wood and wicker, etc. ..	21,668	29,249	22,614	32,972	47,543
XV. Earthenware, etc. ..	8,009	8,554	8,030	7,945	9,502
XVI. Paper and stationery ..	36,141	37,239	78,194	78,606	75,548
XVII. Jewellery, etc. ..	34,879	39,124	111,196	65,026	81,360
XVIII. Optical, surgical, and scientific instruments ..	146,135	167,770	176,104	214,395	231,123
XIX. Drugs, chemicals, etc. ..	43,649	39,478	48,733	35,808	47,397
XX. Miscellaneous ..	85,896	177,049	141,960	189,826	238,822
XXI. Gold and silver; and bronze specie ..	1,595,820	1,761,829	1,855,962	2,084,568	2,016,558
Total	2,789,374 (a)	3,072,908 (a)	3,440,776 (a)	3,957,263 (a)	3,956,782 (a)

(a) Estimated British currency value, 1933-34, £ stg. 2,229,339; 1934-35, £ stg. 2,456,219; 1935-36, £ stg. 2,750,029; 1936-37, £ stg. 3,162,784; 1937-38, £ stg. 3,162,368. (b) Preliminary figures, subject to revision.

C. TOTAL EXPORTS.—AUSTRALIAN PRODUCE AND RE-EXPORTS.

<i>Australian Currency Values.</i>					
I. Animal foodstuffs, etc. ..	£ A. 17,348,630	£ A. 20,726,770	£ A. 20,596,948	£ A. 21,400,916	£ A. 24,976,073
II. Vegetable foodstuffs; non-alcoholic beverages, etc. ..	21,358,053	25,114,111	27,009,075	34,006,755	39,219,900
III. Alcoholic liquors, etc. ..	956,221	972,231	1,110,060	1,254,112	1,184,546
IV. Tobacco, etc. ..	180,767	172,439	228,749	263,604	280,927
V. Live animals ..	144,782	194,419	209,476	250,702	248,413
VI. Animal substances, etc. ..	61,905,858	43,179,994	58,531,920	70,380,155	53,774,174
VII. Vegetable substances, etc. ..	301,490	326,385	265,407	423,586	339,967
VIII. Apparel, textiles, etc. ..	546,182	576,941	603,802	854,845	785,113
IX. Oils, fats, and waxes ..	597,034	1,050,329	860,280	1,132,909	948,854
X. Paints and varnishes ..	74,402	101,128	123,686	162,181	191,887
XI. Stones and minerals, etc. ..	1,167,752	1,392,782	1,809,441	2,488,092	3,309,489
XII. Metals, metal manufactures, and machinery ..	5,032,711	5,130,115	7,247,160	9,465,649	9,521,911
XIII. Rubber and leather, etc. ..	709,464	587,771	746,279	1,025,810	842,542
XIV. Wood and wicker, etc. ..	630,277	913,045	985,996	1,085,368	1,411,309
XV. Earthenware, etc. ..	111,675	145,857	183,390	167,955	201,318
XVI. Paper and stationery ..	185,452	212,902	328,105	325,742	375,646
XVII. Jewellery, etc. ..	128,447	129,145	202,865	185,353	214,985
XVIII. Optical, surgical, and scientific instruments ..	249,630	291,682	295,272	371,861	382,957
XIX. Drugs, chemicals, etc. ..	502,981	586,449	617,902	808,927	808,174
XX. Miscellaneous ..	539,070	725,101	869,162	922,114	1,039,571
XXI. Gold and silver; and bronze specie ..	10,770,421	10,456,441	13,556,246	14,580,377	16,947,320
Total	123,441,299 (a)	112,986,037 (a)	136,381,221 (a)	161,557,013 (a)	157,005,076 (a)

(a) Estimated British currency value, 1933-34, £ stg. 98,572,632; 1934-35, £ stg. 90,225,168; 1935-36, £ stg. 108,907,005; 1936-37, £ stg. 129,013,193; 1937-38, £ stg. 125,378,702. (b) Preliminary figures, subject to revision.

3. Imports of Principal Articles.—The next table shows the quantity, where available, and the value of the principal articles imported into Australia during the last five years. The articles are listed in the order in which they appear in the detailed classification :—

PRINCIPAL COMMODITIES IMPORTED.—AUSTRALIA.

British Currency Values.

Article.		1933-34.	1934-35.	1935-36.	1936-37.	1937-38.(b)
Fish, preserved in tins	lb.	19,597,955	23,971,763	28,059,677	29,866,030	28,321,073
	£	529,531	686,594	773,020	810,644	870,565
Tea	lb.	46,080,172	47,083,850	44,668,703	48,657,083	45,307,019
	£	2,174,035	2,084,489	2,078,334	2,141,812	2,392,338
Whisky	gal.	406,242	480,249	537,024	458,327	533,689
	£	427,638	486,082	553,551	490,222	504,479
Tobacco and preparations thereof	£	718,282	1,342,790	1,014,220	1,717,077	1,705,770
	cwt.	233,788	356,181	374,780	431,589	387,580
Copra	£	67,164	135,577	204,071	345,181	215,137
Fibres	£	425,844	469,802	641,404	845,062	1,012,350
Hides and skins	£	476,844	614,720	614,041	599,956	820,184
Pulp for paper making	ton	35,300	38,259	37,209	48,489	63,932
	£	250,165	265,162	253,610	343,153	568,044
Seeds	£	338,196	547,647	547,244	630,178	582,129
Socks and stockings	£	12,851	21,389	34,900	36,019	48,387
Gloves	£	288,458	327,524	360,124	357,620	397,532
Hats and caps	£	146,786	141,714	157,586	147,560	190,015
Trimnings and ornaments	£	255,477	313,245	333,216	361,316	416,069
Other apparel and attire	£	612,843	699,854	774,699	755,216	961,096
Carpets and carpeting	£	703,87	925,541	1,085,153	1,176,375	1,323,321
Floorcloths and linoleums	£	291,890	352,073	429,245	542,790	606,900
Piece Goods—						
Canvas and duck	£	390,052	511,875	507,284	506,104	754,561
Cotton and linen	£	4,390,262	4,864,080	4,153,052	4,114,015	5,707,134
Silk and artificial silk	£	2,543,386	2,901,694	2,704,410	2,853,771	3,396,875
Woolen or containing wool	£	179,800	245,448	260,871	283,306	321,600
All other piece goods	£	1,645,128	1,872,553	1,971,157	1,983,126	1,750,177
Sewing silks, cottons, etc.	£	479,119	532,768	520,652	470,522	441,696
Bags and sacks	£	2,059,805	1,464,436	1,677,322	1,656,220	1,558,607
Yarns—						
Artificial silk	£	548,356	699,473	613,675	634,392	810,818
Cotton	£	479,400	548,565	435,927	455,099	593,014
Woollen	£	35,162	39,070	80,560	53,882	61,433
Other	£	36,994	44,674	38,624	43,350	51,439
Oils, in bulk—						
Kerosene	gal.	31,155,716	33,482,226	38,770,667	45,617,564	61,189,925
	£	391,251	410,151	467,801	566,415	830,515
Lubricating (mineral)	gal.	12,445,801	13,279,099	14,544,548	14,774,293	18,752,582
	£	646,381	663,810	729,360	752,163	989,721
Petroleum	gal.	266,226,956	267,632,864	319,336,547	341,547,869	402,079,165
	£	3,340,990	3,167,255	4,332,643	5,046,456	6,080,165
Residual and solar	gal.	72,714,508	90,599,493	97,176,103	104,284,965	107,480,320
	£	411,205	548,843	521,166	591,990	736,137
Electrical machinery and appliances	£	1,167,701	1,847,241	2,457,603	2,896,099	3,500,382
Electrical cable and wire, covered	cwt.	91,613	133,198	210,730	251,315	276,264
	£	454,214	645,055	903,582	1,073,068	1,430,089
Agricultural machinery	£	95,306	124,056	153,084	172,190	223,919
Metal-working machinery	£	157,589	333,658	532,070	785,711	1,056,521
Motive power machinery	£	522,387	1,042,739	1,896,675	2,766,077	3,697,299
Iron and steel—						
Pipes and tubes	£	460,306	526,981	388,060	399,483	636,119
Plate and sheet	£	1,421,528	2,041,436	2,529,737	2,301,462	4,407,690
Cutlery and platedware	£	315,408	380,385	482,740	511,186	571,336
Tools of trade	£	585,142	751,207	877,247	871,285	1,117,339
Motor cars, chassis, bodies, and parts	£	2,795,239	4,488,941	5,968,018	5,807,211	8,428,005
Rubber and rubber manufactures	£	663,539	866,692	1,047,535	1,673,993	1,836,503
Timber, undressed, including logs (a)	sq. ft.	43,176,441	398,001,093	358,145,252	289,000,720	106,581,843
	£	1,002,815	1,356,523	1,416,467	1,250,500	2,037,706
Crockery	£	382,395	402,852	532,750	510,376	588,225
Glass and glassware	£	419,615	588,809	747,576	704,008	1,027,304
Paper, printing	£	1,726,627	1,837,220	2,031,637	2,593,305	2,467,264
Stationery and paper manufactures	£	1,369,976	1,609,087	1,789,091	1,766,800	1,944,081
Cinematograph films	lin. ft.	60,323,714	54,600,149	73,804,140	65,320,447	77,500,452
	£	512,351	473,943	527,057	508,122	568,803
Drugs, chemicals, and fertilizers	£	3,384,857	3,537,118	4,370,117	4,818,116	5,287,100
Arms and explosives	£	610,833	608,841	995,635	582,058	563,340
Musical instruments, pianos, etc.	£	55,161	77,289	111,111	750,091	177,285
Outside Packages	£	1,506,932	1,857,507	2,067,275	2,105,362	2,520,367
All other articles	£	15,833,142	20,653,471	23,937,473	26,683,289	32,976,157
Total Imports	£	60,712,926	74,119,496	85,252,458	92,640,462	113,965,070

(a) Exclusive of undressed timber not measured in super. ft. to revision.

(b) Preliminary figures, subject to revision.

4. Exports of Principal Articles of Australian Produce.—(a) Quantities. The following table shows the quantities of the principal articles of Australian produce exported during the last five years. The articles are listed in the order in which they appear in the detailed classification:—

PRINCIPAL COMMODITIES EXPORTED.—QUANTITIES, AUSTRALIA.

Article.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.(b)
Butter centl.	2,442,997	2,625,189	2,126,462	1,743,094	1,973,446
Cheese centl.	93,137	168,294	129,726	139,236	272,454
Eggs in shell doz.	19,617,032	21,718,740	17,365,132	16,473,894	11,287,363
Milk and Cream centl.	197,720	165,495	169,610	220,724	247,163
Fruits, dried centl.	1,454,867	1,277,789	1,114,976	1,204,077	1,457,598
Fruits, fresh centl.	2,402,877	2,284,592	2,517,404	2,493,172	2,555,236
Barley centl.	1,359,954	1,450,854	1,736,042	1,302,810	2,398,234
Wheat centl.	36,959,117	34,575,814	40,195,876	43,066,812	56,702,254
Flour centl.	10,849,839	14,959,412	12,341,620	11,295,563	12,609,073
Sugar (Cane) cwt.	6,158,062	6,128,820	5,997,700	8,115,420	8,366,680
Wine gal.	3,066,743	3,394,597	3,706,295	4,087,731	3,897,186
Tobacco, manufactured .. centl.	4,242	3,853	5,938	7,154	8,300
Wool (in terms of greasy wool) .. centl.	5,929,341	6,127,242	6,117,242	6,117,242	8,555,707
Pearl-shell cwt.	33,771	68,771	57,771	57,771	52,229
Sandalwood cwt.	79,001	75,420	47,043	74,115	24,513
Tallow (unrefined) ton	467,748	827,136	450,324	648,774	541,136
Coal ton	292,416	305,139	307,540	304,388	392,873
Concentrates cwt.	2,818,036	2,212,324	4,368,514	3,991,949	5,401,563
Copper cwt.	105,389	11,072	20,432	69,155	41,617
Lead cwt.	3,687,298	3,673,347	3,882,245	3,480,876	4,270,683
Zinc—bar, block, dust .. cwt.	940,945	537,050	846,269	955,502	618,858
Tin—ingots cwt.	24,794	22,097	16,012	13,524	14,065
Timber, undressed, including Logs (a) sup. ft.	45,507,512	36,911,000	40,307,040	44,056,160	101,033,636
Soap centl.	71,521	54,371	54,502	58,062	40,007

(a) Exclusive of undressed timber not measured in super. feet.

(b) Preliminary figures, subject to revision.

(b) Values. The values of the principal articles of Australian produce exported during the same period as in the preceding table are given in the table hereunder:—

PRINCIPAL COMMODITIES EXPORTED.—VALUES, AUSTRALIA.

Australian Currency Values.

Article.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38(c)
	£A.	£A.	£A.	£A.	£A.
Butter	8,194,220	9,586,776	9,028,243	8,801,643	10,160,348
Cheese	229,313	403,977	337,467	381,074	845,110
Eggs in shell	1,058,104	1,148,554	910,892	954,578	686,713
Meats	7,094,371	8,846,110	8,752,842	10,331,840	12,250,041
Milk and cream	739,000	710,166	722,301	849,465	963,846
Fruits, dried	2,050,773	2,165,244	1,987,104	2,059,358	2,682,352
Fruits, fresh	2,011,095	1,821,032	2,026,860	1,079,800	2,054,322
Fruits, preserved in liquid ..	949,200	997,100	805,797	1,011,994	1,287,962
Barley	305,359	394,466	360,391	504,495	805,943
Wheat	8,873,987	11,612,368	14,050,075	18,760,772	20,906,601
Flour	3,266,718	4,607,383	4,019,852	5,590,942	6,032,321
Sugar (Cane)	2,291,333	2,191,882	2,127,732	788,553	4,072,251
Wine	801,820	810,021	931,624	1,042,069	943,241
Tobacco, manufactured ..	111,664	100,867	142,408	180,609	192,217
Hides and skins	4,384,584	3,501,612	5,649,127	7,296,498	6,180,770
Wool	57,111,440	39,263,282	52,339,514	62,502,629	46,982,079
Pearlshell	198,347	218,463	302,491	319,631	345,580
Sandalwood	114,301	108,641	66,845	106,448	36,841
Tallow (unrefined)	101,040	277,775	113,775	147,309	620,309
Coal	260,296	273,305	276,553	300,457	354,754
Concentrates	816,430	759,106	1,130,167	1,816,776	2,280,672
Copper	230,935	9,797	25,874	137,276	47,783
Lead	2,418,072	2,410,023	3,837,381	4,817,749	4,938,171
Zinc—bar, block, dust ..	617,736	481,020	905,130	1,314,030	752,311
Tin—ingots	329,410	302,271	200,807	193,928	187,469
Leather	611,359	489,282	639,066	800,056	725,106
Timber, undressed, including Logs (a) ..	480,758	435,661	516,022	606,702	1,202,447
Soap	110,498	83,798	92,086	88,462	75,878
Gold	8,159,695	8,153,758	10,709,718	11,825,898	13,910,680
Silver	1,014,750	540,824	990,506	668,323	1,018,355
All other articles	7,090,727	6,531,000	7,035,401	8,554,272	9,495,563
Total Exports (Australian Produce)	120,651,925	109,913,129	132,940,445	157,599,750	153,048,212
	(b)	(b)	(b)	(b)	(b)

(a) Exclusive of undressed timber not measured in super. feet. (b) Estimated British currency value—1933-34, £ stg. 96,343,293; 1934-35, £ stg. 87,768,049; 1935-36, £ stg. 106,157,176; 1936-37, £ stg. 125,037,461; 1937-38, £ stg. 122,216,394. (c) Preliminary figures, subject to revision.

5. **Imports of Merchandise, Specie and Bullion.**—The table hereunder gives the value in British currency of imports into Australia during each of the last five years grouped under the headings—Merchandise, and Specie and Bullion. The imports of merchandise are shown under the sub-headings of “free” and “dutiable” goods:—

IMPORTS OF MERCHANDISE, SPECIE AND BULLION—AUSTRALIA.

British Currency Values.

Year.	Merchandise.			Specie and Bullion.	Total Imports
	Free Goods.	Dutiable Goods.	Total Merchandise.		
	£ Stg.	£ Stg.	£ Stg.	£ Stg.	£ Stg.
1933-34 ..	24,359,167	35,075,642	59,434,809	1,278,117	60,712,926
1934-35 ..	28,578,421	43,842,586	72,421,007	1,698,489	74,119,496
1935-36 ..	32,693,465	50,827,866	83,521,331	1,731,127	85,252,458
1936-37 ..	37,705,653	52,885,927	90,591,580	2,048,882	92,640,462
1937-38 (b) ..	46,453,555	65,279,699	111,733,254	2,241,806	113,975,060

(a) Estimated Australian currency value—1933-34, £A76,042,940; 1934-35, £A92,834,669; 1935-36, £A106,778,705; 1936-37, £A115,898,568; 1937-38, £A142,753,763. (b) Preliminary figures, subject to revision.

6. **Exports of Merchandise, Specie and Bullion.**—The next table shows the recorded value of exports from Australia during each of the last five years, grouped under the headings—Merchandise, and Specie and Bullion, giving the exports of Australian Produce and Other Produce separately:—

EXPORTS OF MERCHANDISE, SPECIE AND BULLION.—AUSTRALIA.

Year.	Merchandise.			Specie and Bullion.			Total Exports. (a)
	Australian Produce.	Other Produce.	Total Merchandise.	Australian Produce.	Other Produce.	Total Specie and Bullion.	
	£	£	£	£	£	£	£
1933-34 {	(b) 111,477,324	1,193,554	112,670,878	9,174,601	1,595,820	10,770,421	123,441,299
(c) 80,003,554	95,209,327	8,068,551	103,277,878	1,278,117	8,631,314	9,909,431	113,187,309
1934-35 {	(b) 101,218,517	1,311,079	102,529,596	8,694,612	1,761,829	10,456,441	112,986,037
(c) 80,813,127	1,167,769	11,809,597	12,977,366	1,400,150	8,365,313	9,765,463	122,753,403
1935-36 {	(b) 121,240,161	1,584,814	122,824,975	11,700,284	1,835,962	13,536,246	136,361,221
(c) 96,797,851	1,340,320	12,963,851	14,304,171	1,451,709	10,811,154	12,262,863	155,625,342
1936-37 {	(b) 145,103,941	1,872,695	146,976,636	12,495,809	2,084,568	14,580,377	161,557,013
(c) 115,854,812	1,495,169	11,349,995	12,845,164	1,667,518	11,664,195	13,331,713	159,801,193
1937-38 {	(b) 138,117,450	1,940,306	140,057,756	14,930,762	2,016,558	16,947,320	157,005,076
(d) 110,273,113	1,549,146	11,722,559	13,271,705	1,611,332	13,556,303	15,167,635	154,838,762

(a) Does not include the value of Ships' Stores. See later table. (b) Australian currency values. (c) British currency values. (d) Preliminary figures, subject to revision.

7. **Imports in Tariff Divisions.**—In the following table the imports into Australia during the last five years have been classified in accordance with the sixteen divisions of the Customs Tariff.

IMPORTS IN TARIFF DIVISIONS—AUSTRALIA.

British Currency Values.

Tariff Division.	Imports.				
	1932-33.	1933-34.	1934-35.	1935-36.	1936-37. (a)
	£ Stg.	£ Stg.	£ Stg.	£ Stg.	£ Stg.
I. Ale, Spirits, and Beverages ..	522,240	619,171	724,243	810,479	775,444
II. Tobacco and preparations thereof ..	711,848	718,282	1,342,796	1,614,226	1,717,677
III. Sugar ..	12,167	13,784	18,213	21,542	28,326
IV. Agricultural Products and Groceries ..	3,709,621	4,669,232	5,359,517	5,832,041	6,762,587
V. Textiles, Felts and Furs, and Manufactures thereof, and Attire ..	15,473,427	14,249,414	15,589,378	15,456,564	16,221,963
VI. Metals and Machinery	8,071,275	9,440,968	13,462,994	17,659,405	19,260,713
VII. Oils, Paints, and Varnishes ..	6,195,643	5,546,801	5,707,247	7,380,167	8,367,745
VIII. Earthenware, Cement, China, Glass, and Stone ..	1,169,548	1,325,086	1,796,833	1,996,432	2,117,595
IX. Drugs and Chemicals	2,923,319	2,761,080	2,842,580	3,406,834	3,387,632
X. Wood, Wicker, and Cane ..	1,265,780	1,403,049	1,847,866	1,976,646	1,787,427
XI. Jewellery and Fancy Goods ..	1,278,446	2,516,918	1,476,572	1,807,147	1,772,176
XII. Hides, Leather, and Rubber ..	1,093,902	890,793	1,184,908	1,506,155	2,314,197
XIII. Paper and Stationery	4,517,660	4,523,480	5,010,840	5,534,305	6,230,326
XIV. Vehicles ..	2,075,555	3,642,192	5,685,833	7,885,946	7,988,486
XV. Musical Instruments	36,824	55,401	77,280	111,441	150,991
XVI. Miscellaneous ..	6,367,260	6,388,171	8,301,732	8,158,740	8,753,533
— Free Goods not specially mentioned in Tariff ..	1,418,177	670,918	1,992,166	2,363,201	2,945,762
Total Merchandise ..	56,842,701	50,434,800	72,421,007	83,521,331	90,591,580
Specie and Bullion ..	1,171,159	1,278,117	1,698,489	1,731,127	2,048,882
Grand Total ..	58,013,860	50,712,920	74,119,496	85,252,458	92,640,462

(a) Preliminary figures, subject to revision.

Consequent on the imposition of increased customs duties, prohibition of imports of certain goods, and the economic depression, imports declined rapidly in 1931-32, the total value of merchandise imported being £44 million as against £131 million during 1929-30. Imports of merchandise increased to £57 million during 1932-33 and to £59 million during 1933-34 owing to the partial removal of tariff restrictions, the replenishment of stocks and the improved economic conditions. Further expansion was recorded during each of the next three years, with increases in practically all tariff divisions, the total imports of merchandise in 1936-37 exceeding those of 1933-34 by £31,000,000.

8. Imports and Net Customs Revenue.—The percentage of net Customs revenue collected on the total value of all merchandise imported in each year was as follows:—1932-33, 23.5 per cent.; 1933-34, 24.4 per cent.; 1934-35, 23.1 per cent.; 1935-36, 22.3 per cent.; and 1936-37, 22.0 per cent. Primage duty was in force during the five years, and adding this to net customs revenue, the percentages were as follows:—1932-33, 29.8 per cent.; 1933-34, 29.8 per cent.; 1934-35, 27.8 per cent.; 1935-36, 26.7 per cent.; and 1936-37, 25.3 per cent. The percentages of net Customs revenue, omitting primage, on the total value of dutiable goods only were—1932-33, 40.6 per cent.; 1933-34, 41.3 per cent.; 1934-35, 38.2 per cent.; 1935-36, 36.6 per cent.; and

1936-37, 37.7 per cent. The calculations are based on uniform currency values and on the assumption that the value of clearances approximated to the value of imports during the same period.

9. **Protective and Revenue Customs Duties.**—In the following table the value of goods cleared for home consumption classified under protective and revenue duties and the gross duty collected are shown for the United Kingdom and other countries:—

IMPORTS (CLEARANCES) CLASSIFIED UNDER PROTECTIVE AND REVENUE DUTIES—AUSTRALIA.

Australian Currency Values.

Item.	1934-35.			1935-36.			1936-37.		
	United Kingdom.	Other Countries.	Total.	United Kingdom.	Other Countries.	Total.	United Kingdom.	Other Countries.	Total.
	£A 1,000.	£A 1,000.	£A 1,000.	£A 1,000.	£A 1,000.	£A 1,000.	£A 1,000.	£A 1,000.	£A 1,000.
Dutiable Goods:—									
Protective.. ..	8,499	6,568	15,067	9,417	7,639	17,056	10,347	7,415	17,762
Revenue	10,611	29,874	40,485	10,488	35,511	45,999	14,087	35,030	49,117
Total Dutiable Goods ..	19,110	36,442	55,552	19,905	43,150	63,055	24,434	42,445	66,879
Free Goods	19,753 (a)	17,363 (a)	37,922	21,911 (a)	20,042 (a)	43,364	22,990 (a)	23,012 (a)	47,226
Total All Goods	38,863 (a)	53,805 (a)	93,474	41,816 (a)	63,192 (a)	106,419	47,424 (a)	65,457 (a)	114,105

PERCENTAGE OF TOTAL GOODS CLEARED FOR HOME CONSUMPTION.

	%	%	%	%	%	%	%	%	%
Dutiable Goods:—									
Protective.. ..	9.1	7.0	16.1	8.9	7.2	16.1	9.1	6.5	15.6
Revenue	11.3	32.0	43.3	9.8	33.4	43.2	12.3	30.7	43.0
Total Dutiable Goods ..	20.4	39.0	59.4	18.7	40.6	59.3	21.4	37.2	58.6
Free Goods	21.1	18.5	40.6	20.6	18.8	40.7	20.3	20.2	41.4
Total All Goods	41.5	57.5	100.0	39.3	59.4	100.0	41.6	57.4	100.0

GROSS CUSTOMS DUTY COLLECTED.

	£A 1,000.	£A 1,000.	£A 1,000.	£A 1,000.	£A 1,000.	£A 1,000.	£A 1,000.	£A 1,000.	£A 1,000.
Dutiable Goods:—									
Protective.. ..	1,640	3,178	4,818	1,847	3,429	5,276	2,035	3,315	5,350
Revenue	1,707	15,241	16,948	1,825	17,236	19,061	1,981	18,611	20,592
Total Dutiable Goods ..	3,347	18,419	21,766	3,672	20,665	24,337	4,016	21,926	25,942

AVERAGE AD VALOREM RATE OF DUTY ON GOODS CLEARED FOR HOME CONSUMPTION.

	%	%	%	%	%	%	%	%	%
Dutiable Goods:—									
Protective.. ..	19.3	48.4	32.0	19.6	44.9	30.9	19.7	44.7	30.1
Revenue	16.1	51.0	41.9	17.4	48.5	41.4	14.1	53.1	41.9
Total Dutiable Goods ..	17.5	50.5	39.2	18.5	47.9	38.6	16.4	51.7	38.8

(a) Exclusive of goods admitted free for Commonwealth, Consuls, etc., and free reimported not distributed according to United Kingdom and other origin.

§ 9. Ships' Stores.

Prior to 1906 goods shipped in Australian ports on board oversea vessels as ships' stores were included in the general exports. From 1906, ships' stores have been specially recorded as such, and have been omitted from the export figures. The value of these stores shipped each year during the period 1927-28 to 1936-37, showing bunker coal separately, is given in the following table :—

VALUE OF STORES SHIPPED ON OVERSEA VESSELS—AUSTRALIA.

Period.	Bunker Coal.	All Stores (including Coal).	Period.	Bunker Coal.	All Stores (including Coal).
	£ A.	£ A.		£ A.	£ A.
1927-28 ..	1,306,225	2,601,034	1932-33 ..	550,277	1,621,640 ^a
1928-29 ..	1,009,163	2,316,116	1933-34 ..	495,051	1,620,907 ^a
1929-30 ..	742,383	2,046,561	1934-35 ..	544,877	1,712,547 ^a
1930-31 ..	607,537	1,653,141 ^a	1935-36 ..	576,549	1,808,291 ^a
1931-32 ..	534,897	1,559,574 ^a	1936-37 ..	564,071	1,740,437 ^a

(a) Estimated British currency value—1930-31, £ stg. 1,408,032; 1931-32, £ stg. 1,225,119; 1932-33, £ stg. 1,294,723; 1933-34, £ stg. 1,294,137; 1934-35, £ stg. 1,367,303; 1935-36, £ stg. 1,443,745; and 1936-37, £ stg. 2,179,897.

In addition to bunker coal, the principal items of ships' stores supplied to oversea vessels in 1936-37 were—Oils, £493,327 (mainly fuel oils); meats, £188,859; butter, £38,738; fish, £44,558; and vegetables, fresh, £27,696.

The net Customs duty collected on ships' stores carried to Australia on oversea vessels and consumed in Australian waters amounted in 1936-37 to £50,610.

§ 10. Movement of Specie and Bullion.

1. Imports and Exports. —The following tables show the values of gold and silver specie and bullion, and of bronze specie imported into and exported from Australia during the years 1933-34 to 1937-38 :—

IMPORTS AND EXPORTS, SPECIE AND BULLION—AUSTRALIA.

Items.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38 (b)
IMPORTS.					
	£ Stg.	£ Stg.	£ Stg.	£ Stg.	£ Stg.
Gold—Specie ..	466	206	1,093	69	1,070
Bullion ..	1,210,239	1,679,380	1,634,417	1,998,311	2,191,969
Total ..	1,210,705	1,679,586	1,635,510	1,998,380	2,193,039
Silver—Specie ..	57,642	3,057	77,939	34,092	29,576
Bullion ..	9,528	15,704	17,333	16,211	18,866
Total ..	67,170	18,761	95,272	50,303	48,442
Bronze—Specie ..	242	142	345	199	325

GRAND TOTAL .. (a) 1,278,117 (a) 1,698,489 (a) 1,731,127 (a) 2,048,882 (a) 2,241,800

(a) Estimated Australian currency value—1933-34, £A1,600,842; 1934-35, £A2,127,357; 1935-36, £A2,168,238; 1936-37, £A2,566,225; and 1937-38, £A2,807,862. (b) Preliminary figures, subject to revision.

IMPORTS AND EXPORTS, SPECIE AND BULLION—AUSTRALIA—*continued.*

Items.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.(b)
EXPORTS.					
Gold—Specie ..	£ A. 340,656	£ A. 206,618	£ A. 994,924	£ A. 181,785	£ A. 96,820
Bullion ..	9,232,506	9,609,980	11,532,943	13,705,405	15,815,523
Total ..	9,573,162	9,816,598	12,527,867	13,887,190	15,912,343
Silver—Specie ..	231,518	106,122	151,671	101,947	43,232
Bullion ..	958,619	530,822	874,495	587,974	989,296
Total ..	1,190,137	636,944	1,026,166	689,921	1,032,528
Bronze—Specie ..	7,122	2,899	2,213	3,266	2,449
Total—					
Australian Produce ..	9,174,601	8,694,612	11,700,284	12,495,809	14,930,762
Other Produce ..	1,595,820	1,761,329	1,855,962	2,084,568	2,016,558
GRAND TOTAL ..	10,770,421	10,456,441	13,556,246	14,580,377	16,947,320
	(a)	(a)	(a)		(a)

(a) Estimated British currency value—1933-34, £ stg. 8,615,841; 1934-35, £ stg. 8,365,212; 1935-36, £ stg. 10,843,354; 1936-37, £ stg. 11,663,195; and 1937-38, £ stg. 13,556,203. (b) Preliminary figures, subject to revision.

2. Imports and Exports by Countries.—The next table shows the imports and exports of specie and bullion from and to various countries during the year 1937-38 :—

IMPORTS AND EXPORTS OF SPECIE AND BULLION BY COUNTRIES.—AUSTRALIA. 1937-38.

Country.	Imports.			Exports.		
	Specie.	Bullion.	Total.	Specie.	Bullion.	Total.
	£ Stg.	£ Stg.	£ Stg.	£ A.	£ A.	£ A.
Australia (a) ..	29,706	..	29,706	..	..	..
United Kingdom ..	1,184	1,318	2,502	27,572	8,949,242	8,076,814
Ceylon ..	..	..	..	..	432,026	432,026
India ..	..	..	..	..	172,047	172,047
Malaya (British) ..	..	703	703	..	..	..
New Zealand ..	..	283,232	283,232	6,754	285	7,039
Pacific Islands—						
Fiji ..	..	390,572	390,572	100	..	100
Gilbert and Ellice Islands Colony ..	..	..	..	50	..	50
Nauru ..	..	..	..	4,545	..	4,545
Papua ..	..	96,090	96,090	1,763	..	1,763
Territory of New Guinea ..	81	1,438,428	1,438,509	19,960	..	19,960
Total, British Countries ..	30,971	2,210,343	2,241,314	60,744	8,653,600	8,714,344
Belgium ..	..	..	..	..	335	335
France ..	..	1	1	..	733,301	733,301
Germany ..	..	..	..	..	7,187	7,187
Netherlands East Indies ..	..	..	..	6,445	..	6,445
Pacific Islands—						
New Hebrides ..	..	..	..	4,333	..	4,333
United States of America ..	..	491	491	70,979	7,410,396	7,481,375
Total, Foreign Countries ..	..	492	492	81,757	8,151,219	8,232,976
GRAND TOTAL ..	30,971	2,210,835	2,241,806	142,501	16,804,819	16,947,320
			(b)			(c)

(a) Australian produce re-imported. (b) Estimated Australian currency value—£ A2,807,862. (c) Estimated British currency value—£ Stg. 13,556,203.

§ 11. Exports according to Industries.

1. **Classification.**—The following table gives an analysis of the exports of Australian produce according to the main classes of industry in which the goods were produced for the years 1935–36 and 1936–37 in comparison with those for the year 1913. The index-number based on the year 1913 shows the variations in the total recorded value only of exports in each industrial group, and has not been adjusted either for price-changes or in accordance with the variation of the Australian £ in relation to sterling.

A graph is published on page 498 of this chapter which shows the value of exports of Australian produce according to industrial groups from 1920–21 to 1936–37.

EXPORTS OF AUSTRALIAN PRODUCE ACCORDING TO INDUSTRIAL ORIGIN.

VALUE OF EXPORTS.

Industrial Group.	1913. (a)		1935–36.		1936–37.	
	£A	Index No.	£A	Index No.	£A	Index No.
Agriculture	10,677,734	100	27,748,739	260	34,852,599	326
Pastoral	42,057,346	100	67,520,208	161	80,703,697	192
Dairy and Farmyard ..	3,854,734	100	11,218,330	291	11,260,165	292
Mines and Quarries (c) ..	21,926,310	100	16,854,828	77	20,911,257	95
Fisheries	424,849	100	351,408	83	379,833	89
Forestry	1,106,549	100	945,088	85	1,067,306	96
Total, Primary Produce	80,047,522	100	124,638,601	156	149,174,857	186
Manufacturing	2,304,693	100	5,936,860	258	7,881,348	342
Total	82,352,215	100	130,575,461	159	157,056,205	191
			(b)		(b)	

(a) Base year. (b) Estimated British currency value, 1935–36, £ Stg. 104,251,865, Index-number 127; 1936–37, £ Stg. 125,394,171; Index-number, 152. (c) Australian production of gold substituted for exports of gold each year.

2. **Relative Importance of Industrial Groups.**—In the previous table the value of commodities in each industrial group of exports of Australian produce is that recorded at date of shipment from Australia, with the exception that the value of the production of gold in Australia in each year has been substituted in the Mines and Quarries group for actual shipments of gold in each year. This has been done to eliminate the exports of gold for monetary purposes. In order of importance the pastoral group occupied the highest place and in 1913 the value of commodities included in this group represented 51.1 per cent. of the total exports, as compared with 51.7 per cent. in 1935–36 and 51.3 in 1936–37. Wool constituted the greater part of the exports in the pastoral group and the increase in the group in 1936–37 compared with 1935–36 was entirely due to the higher prices realized for this commodity.

Exports of agricultural produce rank next in importance. Compared with the previous year the value of agricultural exports was over seven millions higher in 1936–37 owing to increased exports of wheat combined with higher prices. From 13.0 per cent. of the total exports in 1913, agricultural produce increased to 22.2 per cent. in 1936–37.

According to value, exports of dairy and farmyard produce increased from 4.7 per cent. in 1913 to 11.0 per cent. in 1934–35 but declined during the next two years to 7.2 per cent. in 1936–37. Though the products of mines and quarries declined seriously subsequent to the year 1913, a recovery has been made in more recent years, the figures for 1936–37 representing 13.3 per cent. of the total exports. The manufacturing group of exports, which represented 2.8 per cent. in 1913, increased to 5.0 per cent. in 1936–37.

Compared with the year 1913, exports of agricultural produce in 1936–37 showed an increase of 226 per cent., pastoral produce 92 per cent., dairy and farmyard produce 192 per cent., the manufacturing group 242 per cent., and total exports 91 per cent. The exports of the products of mines and quarries and of fisheries and forests were slightly lower in 1936–37 than in 1913 but compared with 1935–36 the exports of the products of mines and quarries were 24 per cent., fisheries 28 per cent., and forestry 13 per cent. higher.

3. **Australian Production and Exports according to Industry.**—The following table shows the total values of Australian production and Australian exports during the period of ten years, 1927–28 to 1936–37, classified according to industries; the proportion of each industrial group to total production and to total exports; and in the last column the percentage exported of the production of each industrial group:—

VALUE OF AUSTRALIAN PRODUCTION AND EXPORTS, ACCORDING TO INDUSTRY.

Australian Currency Values.

Industrial Group	Value of Production during Ten Years.	Percentage on Total Production.	Value of Exports during Ten Years.	Percentage on Total Exports.	Percentage Exported of the Production in each Industrial Group.
	£A1,000.	%	£A1,000.	%	%
Agriculture	777,537	20.42	283,949	24.07	36.52
Pastoral	888,694	23.33	610,515	51.76	68.70
Dairy and Farmyard ..	457,031	12.00	103,728	8.79	22.70
Mining	192,948	5.07	121,107	10.27	62.76
Forestry and Fisheries ..	103,505	2.72	13,091	1.11	12.65
Total, Primary Produce..	2,419,715	63.54	1,132,390	96.01	46.80
Manufacturing	1,388,758	36.46	47,099	3.99	3.39(a)
Total	3,808,473	100.00	1,179,489	100.00	30.97(a)

(a) See letterpress in the concluding paragraph of this section.

The figures relating to value of production and value of exports are subject to the qualifications mentioned previously. A period of ten years is embraced, and the values of production and of exports therein give a very fair index of the relative importance of the several industrial groups. Of the total production 63.54 per cent. was classified as primary produce and 36.46 per cent. as manufactured articles. The main contributing groups in the primary produce section were pastoral with 23.33 per cent., agriculture with 20.42 per cent., and dairy and farmyard produce with 12.00 per cent. of the total production.

Exports of primary produce represented 96.0 per cent. of the total exports. The primary groups in order of value were pastoral 51.7 per cent., agricultural 24.1 per cent., mining 10.3 per cent., dairy and farmyard 8.8 per cent., and forestry and fisheries 1.1 per cent. The manufacturing group accounted for the other 4.0 per cent.

The figures in the last column of the table are of special interest, as they show the percentage exported of the production of each industrial group. Of the total primary production during the period, 46.80 per cent. was exported. Approximately 37 per cent. of the agricultural production, 69 per cent. of the pastoral production, 23 per cent. of the dairy and farmyard production, 63 per cent. of the mining production, and 13 per cent. of the production of forestry and fisheries combined were sent abroad.

The total exports of gold bullion and specie are not included in the value of exports of the mining industry, the actual production of gold during the period being taken.

On account of the inherent difficulties of classifying production and exports by industries, the figures given for the manufacturing industry should not be interpreted too literally. In the first place, the value of manufacturing "production" stated is not the total value of output, but only the "value added" by manufacturing processes, while the value of manufactured exports represents the total value of the goods, including raw materials, etc. Secondly, some of the exported goods classified as primary produce have been increased in value by manufacturing processes, but have not been changed in form sufficiently to warrant their inclusion as manufactured products, e.g., flour, butter and sugar.

§ 12. Australian Index of Export Prices.

1. *The Old Annual Series.*—With the exception of the last few years an annual index of export prices has been published by the Commonwealth Bureau of Census and Statistics since its inception. An index was at first obtained by valuing the exports (other than gold) of each successive year at the prices of 1901, and dividing the values so obtained into the export values actually recorded. These computations were carried back to 1901. In 1918 the procedure was changed and brought into harmony with the methods adopted by the Bureau for constructing other price indexes. The average quantities of the principal exports (other than gold) for the nineteen years 1897 to 1916 were taken, and valued at the prices of each successive year. Comparisons of the resulting totals for different years were assumed to give the required comparisons of export price-levels for those years. The two methods would, however, give the same results only if the proportion of different exports for each year in question was the same as the average for the nineteen years. The proportion was, in fact, varying appreciably from year to year with the seasons. The old index was, therefore, based on a different system of weighting in each year, so that the results were not comparable for different years. The new method gave comparable and satisfactory results so long as the proportion of different exports was not widely different from the average of 1897 to 1916. After the war, however, the relative importance of different exports changed considerably. By about 1930 it began to appear that the change was great enough to throw some doubt on the accuracy of the index. It was published with increasing reluctance until 1929–30, after which it was withdrawn from publication.

Since that time endeavours have been made to design and compile new series of index-numbers which would reflect more accurately the short- and intermediate-period fluctuations in export prices.

2. *The New Monthly Series.*—An attempt was made to overcome some of the difficulties occasioned by variations in the proportions of the different exports by compiling two separate series of monthly index-numbers. The first series is compiled in very much the same way as the old annual index-numbers, although certain important changes have been made in the data utilized. These are described below. For the present it may be noted that the purpose of this index is to provide comparisons, over a limited number of years, of the level of prices of those commodities normally exported from Australia, making no allowance for any benefit or disadvantage accruing from variations during the period in the relative proportions of the different kinds of exports. It is thus an index purely of price changes. The second series is designed for shorter-period comparisons—from one or more months of the current year to the corresponding months of the previous year. The latter is compiled in such a way as to take more close account of the actual quantities of each article exported at current prices; and hence to indicate with rather greater accuracy the extent to which price-movements have affected the actual value of our current exports. It will be clear, therefore, that the two series are designed to measure different things, any differences between the results being explicable on wider grounds than mere differences in formulae.

Reference has already been made to the fact that the data on which the new series are based differ from those utilized in the old series of annual index-numbers. These changes apply to both of the new series.

The most important change was the use of actual (or calculated) export parities, based on actual price quotations, in place of the "unit-values" declared at the Customs. Declared unit values are not satisfactory even in an annual index-number, partly because the returns are not always sufficiently accurate, and partly because there is a constant variation in the proportions of different grades and qualities included in the actual exports of any given period. An obvious example of the latter type of inaccuracy is furnished by the case of wool, the poorer grades of which are shipped during certain months of the off-season. In a monthly series of index-numbers, declared unit-values are even less satisfactory, as the difficulties are greatly magnified over short periods, during which the inaccuracies have little change of averaging out.

Moreover, the export parities have in all cases been based on prices f.o.b. Australian ports. Where freight and selling charges form an appreciable percentage of the selling price, the use of unadjusted overseas quotations results in some distortion of the amplitude of the percentage fluctuations in prices.

The old index took no account of gold exports. The omission is natural and reasonable for countries which produce little or no gold. For gold-producing countries, although some exports of gold would be irrelevant (e.g., the Australian shipments of gold reserves during the depression), the exports of newly-produced gold should be taken into account. In the new series, therefore, gold is included, but the weight given to it is not the quantity exported but the quantity produced.

Each series of index-numbers takes account of 20 items, which constitute at present about 85 per cent. of the total value of exports of merchandise and silver and gold production.

3. **Monthly Index (Fixed Weights).**—The original "multipliers" used for the first series of index-numbers were, in round figures, the average annual exports (or production, in the case of gold) during the five years 1928-29 to 1932-33. This period was chosen some time ago as being fairly representative of the mutual relationship of the different export commodities over the period from 1928 to 1933 and, so far as it was possible to judge at the time, over the ensuing few years. As from July, 1936, the "multipliers" were revised to bring them into accord with observed changes in the composition of Australian exports. They are now based on the average annual exports (production, in the case of gold) during the three years 1933-34 to 1935-36. The break of continuity has been bridged by the usual method of splicing.

The twenty items, together with the units of quantity and the "multipliers", are given in the following table. It should be noted that (i) the "multiplier" allotted to wheat has been increased to take into account the "wheat equivalent" of flour exported, (ii) that allotted to greasy wool has been increased to take into account the "greasy equivalent" of scoured wool, tops and wool on skins, and (iii) those allotted to metals have been increased to take into account the metallic contents of ores and concentrates exported. This is the only satisfactory method of dealing with these commodities, for which it is not possible to secure satisfactory export price quotations in their own right.

EXPORT PRICE INDEX : WEIGHTING SYSTEM (FROM 1st JULY, 1936).

Item.	Unit of Quantity.	Quantity "Multipliers" for New Index-numbers.	Percentage Value Weights if applied to 1937-38.
1. Wheat (and wheat equivalent of flour) ..	bushel	101,000,000	18.41
2. Sultanas	ton	38,200	1.37
3. Lexias	ton	3,000	0.12
4. Currants	ton	13,400	0.34
5. Sugar (cane)	ton	305,000	2.19
6. Wool (as in the grease)	lb.	975,000,000	44.24
7. Tallow	cwt.	600,000	0.63
8. Cattle hides	lb.	28,000,000	0.58
9. Calf skins	lb.	1,800,000	0.07
10. Beef (frozen)	lb.	182,000,000	2.53
11. Lamb (frozen)	lb.	138,000,000	3.42
12. Mutton (frozen)	lb.	44,000,000	0.57
13. Pork (frozen)	lb.	16,000,000	0.41
14. Butter	cwt.	2,140,000	11.96
15. Silver	oz.	7,300,000	0.61
	(standard)		
16. Copper	ton	3,600	0.18
17. Tin	ton	1,300	0.27
18. Zinc	ton	99,000	1.87
19. Lead	ton	208,500	3.51
20. Gold (production)	oz.	937,000	6.72
	(fine)		
			100.00

The relative importance of the several items in the whole index is roughly indicated in the last column, which shows in percentage form the "value aggregates" for 1937-38, i.e., the average prices for that year multiplied by the "quantity multipliers".

The monthly index-numbers of export prices in terms of Australian currency for the period January, 1928 to August, 1938 are set out in the following table. Index-numbers are also given of the same prices in terms of English sterling for the period July, 1929 to August, 1938. Differences in the value of English and Australian currency were sufficiently negligible to be ignored in the previous eighteen months.

AUSTRALIA : MONTHLY EXPORT PRICE INDEX.

(Base : 1928 = 1,000.)

Month.	1928.	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.
(i) IN TERMS OF AUSTRALIAN CURRENCY.											
January ..	1,036	944	761	514	595	548	785	580	772	957	755
February ..	1,036	935	708	557	593	518	759	567	779	934	736
March ..	1,052	902	672	587	562	510	739	564	785	988	730
April ..	1,058	888	689	585	552	516	726	605	790	1,000	722
May ..	1,061	851	694	578	547	561	676	644	790	982	724
June ..	988	798	673	553	533	607	648	652	747	945	695
July ..	997	831	647	535	550	659	620	656	769	952	708
August ..	975	825	635	509	580	661	627	664	804	949	683
September ..	965	818	597	515	604	708	581	714	790	897	..
October ..	936	775	544	597	567	676	564	749	820	876	..
November ..	946	804	543	646	553	714	557	741	893	802	..
December ..	936	795	519	595	550	710	550	736	920	796	..
Simple Average	1,000	847	640	564	566	616	653	656	805	923	..
(ii) IN TERMS OF ENGLISH STERLING.											
January ..	1,036	944	747	428	475	438	627	403	616	704	603
February ..	1,036	935	691	428	473	414	606	453	622	746	588
March ..	1,052	902	645	451	440	407	500	450	627	780	583
April ..	1,058	888	648	449	441	412	500	403	631	799	570
May ..	1,061	851	653	443	437	448	540	514	631	784	578
June ..	998	798	633	425	426	485	517	521	590	754	555
July ..	997	824	609	411	439	526	495	524	612	760	565
August ..	975	817	597	391	463	528	501	530	642	758	545
September ..	965	808	592	395	482	505	404	570	631	710	..
October ..	936	764	593	158	453	540	450	508	655	600	..
November ..	946	792	499	490	442	570	445	592	713	640	..
December ..	936	782	477	474	439	567	439	588	735	636	..
Simple Average	1,000	842	605	437	452	492	521	524	643	737	..

4. Monthly Index (Changing Weights).—The second series of the new index-numbers is designed merely for comparisons with the corresponding month, or period of months, of the previous year. The same price quotations are used, but the "multipliers" are much more closely in accord with the actual experience of the periods in question.

For any given month, the procedure is to multiply the price of each commodity in that month, and its price in the corresponding month of the previous year, by the quantity exported during the given month. A comparison of the resulting aggregates gives one possible measure of the change in prices over the period; i.e., the change assuming that the proportions of the different kinds of exports whose prices are to be measured were the same as their proportions in the given month. Another possible measure is given by assuming that the proportions of the different kinds of exports in the given month had been the same as their proportions in the corresponding month of the previous year. Accordingly the first step in the procedure is repeated, substituting the quantities exported during the corresponding month of the previous year.

The index-numbers so obtained have been proved over a period of years to lie very close together. As it is convenient for practical reasons to have one single figure rather than two close alternatives the two index-numbers are multiplied together and the square root of the product extracted. This is taken to be the index-number for the month, the prices of the corresponding month of the previous year being taken as base. The above could have been expressed more shortly, of course, by saying that Fisher's "ideal" formula has been used.

The index-numbers for two or more months of one year, as compared with the corresponding period of the previous year, are computed in very much the same way. The process merely involves the cumulative addition of the aggregates computed for the individual months, and extraction of the index-numbers as explained above.

In order to indicate more clearly the method of computation followed, and to enable comparisons to be made with the results obtained from the first series of index-numbers, the following table sets out the data in detail for the trade year 1937-38.

AUSTRALIA : MONTHLY EXPORT PRICE INDEX (CHANGING WEIGHTS).

Month.	Index-numbers Based on Quantities of 1937-38.	Index-numbers Based on Quantities of 1936-37.	Final Index-numbers (on "Ideal" Formula).	Index-numbers Based on Standard "Multipliers" (First Series).
(a) INDIVIDUAL MONTHS.				
(Base : Prices in corresponding month of previous year = 1,000.)				
July	1,244	1,229	1,236	1,238
August	1,156	1,162	1,159	1,180
September	1,141	1,133	1,137	1,135
October	1,069	1,059	1,064	1,068
November	903	878	890	898
December	874	862	868	865
January	865	801	832	789
February	790	701	744	788
March	739	723	731	739
April	732	731	732	722
May	741	770	755	737
June	739	782	760	735

AUSTRALIA: MONTHLY EXPORT PRICE INDEX
(CHANGING WEIGHTS)—*continued.*

Month.	Index-numbers Based on Quantities of 1937-38.	Index-numbers Based on Quantities of 1936-37.	Final Index-numbers (on "Ideal" Formula).	Index-numbers Based on Standard "Multipliers (First Series).
(b) PERIODS OF THE TRADE YEAR ENDING IN MONTH STATED. (Base: Prices in corresponding period of previous year = 1,000.)				
July	1,244	1,229	1,236	1,238
August .. .	1,202	1,198	1,200	1,209
September .. .	1,180	1,169	1,174	1,184
October .. .	1,145	1,130	1,137	1,154
November.. .	1,068	1,047	1,057	1,098
December .. .	1,022	999	1,010	1,055
January .. .	1,002	970	986	1,012
February .. .	966	924	945	982
March .. .	930	908	919	951
April .. .	904	890	897	926
May .. .	888	879	884	907
June .. .	877	873	875	892

Monthly export price index-numbers are now issued currently in regular press notices, which are usually available within one week of the end of the month.

§ 13. External Trade of Australia and other Countries.

1. *Essentials of Comparisons.*—Direct comparisons of the external trade of any two countries are possible only when the general conditions prevailing therein, and the system of record, are more or less identical. For example, in regard to the mere matter of record, it may be observed that in one country the value of imports may be the value at the port of shipment, while in another the cost of freight, insurance and charges may be added thereto. Again, the values of imports and exports in the one may be declared by merchants, whereas in the other they may be the official prices fixed from time to time by a commission constituted for the purpose. In later years, moreover, a very substantial difference in the value of imports would arise from the different methods of converting the moneys of foreign countries, i.e., from the application of current rates of exchange or of the mint par. Lastly, the figures relating to the external trade of any country are also affected in varying degree by the extent to which they include transit or re-export trade. This class of trade represents a much greater proportion of the trade of Switzerland and Belgium than that of other countries. France and the United Kingdom also re-export largely, whereas in Canada, Australia and New Zealand the same class of trade represents a comparatively small proportion of the total trade.

2. *"Special Trade" of Various Countries.*—Special trade may be defined according to the interpretation of the British Board of Trade, as (a) imports entered for consumption in the country (as distinguished from imports for transshipment or re-export), and (b) exports of domestic products.

In the following table the figures relate as nearly as possible to imports entered for consumption in the various countries specified, and to exports of their domestic products. It is to be noted, however, that these figures do not invariably denote the same thing throughout, since, in the United Kingdom and other manufacturing countries, raw or partly manufactured materials are imported as for home consumption, and, after undergoing some process of manufacture or further modification, are re-exported as domestic production. Nevertheless, a comparison of this character reveals approximately the extent of the external trade which otherwise would not be manifest. The figures relating to foreign countries have been extracted from the League of Nations Review of World Trade.

IMPORTS FOR HOME CONSUMPTION, AND EXPORTS OF DOMESTIC PRODUCTS
(MERCHANDISE ONLY), VARIOUS COUNTRIES, 1936.

Country.	Trade.			Trade per Inhabitant.		
	Imports.	Exports.	Total.	Imports.	Exports.	Total.
	£1,000,000	£1,000,000	£1,000,000	£ s. d.	£ s. d.	£ s. d.
	Stg.	Stg.	Stg.	Stg.	Stg.	Stg.
Australia (a) ..	90.6	117.3	207.9	13 0 3	17 4 11	30 11 2
United Kingdom ..	788.5	440.7	1,229.2	16 14 10	9 7 2	26 2 0
Canada ..	128.3	206.8	335.1	11 12 8	18 15 1	30 7 9
India ..	92.4	136.3	228.7	0 5 0	0 7 4	0 12 4
New Zealand ..	35.0	45.2	80.2	22 5 0	28 14 8	50 19 8
Union of South Africa ..	88.1	110.2	198.3	9 3 9	11 9 10	20 13 7
Argentine Republic ..	68.6	101.4	170.0	5 10 2	8 2 11	13 13 1
Austria ..	47.3	36.1	83.4	7 0 0	5 6 10	12 6 10
Belgium ..	143.9	134.5	278.4	17 6 9	16 4 1	33 10 10
China ..	56.3	42.2	98.5	0 2 8	0 2 0	0 4 8
Manchuria ..	37.4	26.6	64.0	1 2 9	0 16 2	1 18 11
Czechoslovakia ..	62.7	63.8	126.5	4 2 7	4 4 0	8 6 7
Denmark ..	62.1	59.3	121.4	16 13 8	15 18 8	32 12 4
France ..	306.8	186.6	493.4	7 6 5	4 9 1	11 15 6
Germany ..	341.8	386.3	728.1	5 1 11	5 15 2	10 17 1
Italy ..	86.4	75.7	162.1	2 0 1	1 15 8	3 15 9
Japan ..	157.7	153.6	311.3	2 5 5	2 4 2	4 9 7
Netherlands ..	130.6	95.5	226.1	15 5 3	11 3 2	26 8 5
Netherlands East Indies ..	36.6	78.7	115.3	0 11 2	1 4 1	1 15 3
Norway ..	45.8	33.9	79.7	15 16 5	11 14 2	27 10 7
Poland ..	38.2	39.1	77.3	1 2 4	1 2 10	2 5 2
Soviet Union (Russia) ..	54.1	54.4	108.5	0 6 3	0 6 3	0 12 6
Sweden ..	83.5	78.1	161.6	13 6 6	12 9 3	25 15 9
Switzerland ..	74.4	52.6	127.0	17 17 5	12 12 8	30 10 1
United States of America ..	486.5	485.4	971.9	3 15 9	3 15 7	7 11 4

(a) Year ended 30th June, 1937.

§ 14. Trade of the United Kingdom with Australia compared with that of Competing Countries.

Proportion of Trade from United Kingdom and Competing Countries. -The failure of the United Kingdom to maintain the position formerly held in the import trade of Australia has been a matter of more than ordinary interest for some years. Since 1908 permanent resident Commissioners appointed by the British Board of Trade have been located in Australia for the purpose of advising manufacturers and merchants in the United Kingdom with regard to Australian trade affairs. From the 8th August, 1907, the Commonwealth Customs Tariffs have provided preferential rates of Customs Duties on certain goods the produce or manufacture of the United Kingdom with the object of assisting the British manufacturer to retain or improve his position in this market, in relation to other countries. The main provisions in these Acts relating to preference are dealt with on previous pages in this Chapter.

In an investigation into the relative position occupied by the United Kingdom in the import trade of Australia, the comparison must, of course, be restricted to those classes of goods which are produced or manufactured in the United Kingdom. The imports to Australia include many commodities, such as tea, rice, raw coffee, unmanufactured tobacco, petroleum products, copra, timber, etc., which the United Kingdom could not supply. These items, in addition to others not available from that country, have, therefore, been omitted from the computation hereunder.

The imports into Australia have been classified under nine headings, and the trade of the United Kingdom therein is compared with that of France, Germany, Japan and the United States. These countries have been selected as the principal competitors with the United Kingdom for the trade of Australia under the specified headings. Totals for the five years 1913 and 1933-34 to 1936-37 are shown in the table hereunder:—

AUSTRALIAN IMPORTS OF PRODUCTS OF VARIOUS COUNTRIES.

British Currency Values.

Nature of Imports.	Year.	United Kingdom.	France.	Germany.	Japan.	U.S. of America.	All Countries.
		Estg.	Estg.	Estg.	Estg.	Estg.	Estg.
Foodstuffs of animal origin	1913 ..	301,025	3,093	12,001	6,988	28,123	617,697
	1933-34	223,575	1,058	1,088	28,729	149,923	942,686
	1934-35	241,439	1,517	835	50,111	128,364	1,247,745
	1935-36	247,197	1,269	..	64,668	216,112	1,412,896
	1936-37	281,017	1,208	1,148	61,203	250,934	1,509,813
Spirituuous and alcoholic liquors	1913 ..	1,227,561	343,394	143,426	1,689	2,805	1,947,248
	1933-34	473,620	49,707	2,020	8	233	554,474
	1934-35	526,099	58,002	5,581	10	1,546	637,003
	1935-36	602,630	49,706	2,098	..	1,670	696,103
	1936-37	537,672	53,024	2,268	82	286	633,133
Apparel, textiles, and manufactured fibres	1913 ..	12,254,561	961,025	1,712,395	475,973	623,542	19,935,750
	1933-34	8,753,708	378,388	3,301,454	2,501,023	247,207	18,004,403
	1934-35	11,013,603	323,138	357,810	3,274,235	334,433	17,735,864
	1935-36	9,476,808	258,601	480,183	3,223,060	280,505	17,203,564
	1936-37	11,074,231	248,517	523,529	2,358,636	119,571	18,059,601
Metals, metal manufactures, and machinery	1913 ..	13,905,482	217,148	2,380,152	7,657	3,817,705	21,670,212
	1933-34	8,253,238	31,110	567,683	13,301	2,854,577	13,001,506
	1934-35	11,013,603	48,470	180,782	5,021,190	19,301,432	19,301,432
	1935-36	13,550,189	30,267	1,043,439	237,560	6,848,660	25,206,625
	1936-37	16,142,408	42,731	1,345,057	248,435	6,061,105	27,277,164
Paper and stationery	1913 ..	4,789,377	21,930	266,483	10,656	403,679	5,134,750
	1933-34	2,679,052	50,465	117,390	39,776	193,605	4,304,303
	1934-35	3,800,803	55,863	137,213	52,016	220,004	4,304,188
	1935-36	3,052,273	52,786	208,138	78,785	292,268	5,205,820
	1936-37	3,042,380	57,158	234,769	82,581	318,546	5,933,131
Jewellery, time-pieces, and fancy goods	1913 ..	521,290	88,070	263,688	10,307	138,217	1,141,202
	1933-34	165,311	20,280	68,208	17,708	17,000	240,002
	1934-35	220,252	10,107	114,133	17,990	44,702	1,008,450
	1935-36	232,717	19,545	127,992	195,592	71,047	1,194,566
	1936-37	243,601	26,891	153,485	197,994	83,846	1,256,235
Earthenware, cements, glass, etc.	1913 ..	650,138	40,245	453,188	21,493	62,887	1,565,727
	1933-34	520,686	104,481	57,100	187,177	77,810	1,013,224
	1934-35	714,236	9,301	103,862	215,766	107,155	1,380,865
	1935-36	879,101	8,115	170,663	227,804	127,791	1,690,283
	1936-37	930,126	13,862	167,352	183,558	79,753	1,774,183
Drugs, chemicals, and fertilizers	1913 ..	1,020,647	245,426	304,179	139,178	210,758	2,721,002
	1933-34	1,413,005	288,000	300,323	101,558	490,347	3,384,357
	1934-35	1,561,789	208,707	310,850	116,744	498,178	3,537,218
	1935-36	1,902,253	215,782	352,333	175,803	622,350	4,370,127
	1936-37	1,880,665	208,572	490,370	130,362	567,083	4,515,446
Rubber and leather and manufactures thereof, and substitutes therefor	1913 ..	485,216	68,686	347,045	688	433,837	1,717,035
	1933-34	176,566	7,861	24,992	20,829	60,975	743,036
	1934-35	198,574	4,994	24,572	36,706	72,443	1,000,557
	1935-36	218,850	5,924	28,082	40,250	98,325	1,185,812
	1936-37	241,252	5,200	35,409	42,193	83,039	1,831,914
Total, above-mentioned imports	1913 ..	32,155,498	1,989,017	5,882,627	683,620	5,082,650	55,082,613
	1933-34	22,658,851	812,047	1,503,080	3,174,152	3,727,852	40,747,341
	1934-35	27,449,541	720,601	1,716,511	4,106,870	6,554,835	50,613,322
	1935-36	30,162,108	611,905	2,422,228	4,244,431	8,558,718	58,344,586
	1936-37	34,373,352	657,163	2,953,387	3,305,064	7,564,163	62,790,923
Total imports (less bullion and specie)	1913 ..	40,948,803	2,222,631	7,029,325	950,300	10,907,512	78,196,100
	1933-34	25,134,441	956,335	1,920,976	3,076,737	7,338,982	59,434,800
	1934-35	30,756,096	862,147	2,145,315	4,624,740	11,041,365	72,421,007
	1935-36	33,833,435	790,108	2,903,049	4,969,571	13,901,326	83,518,860
	1936-37	38,559,366	865,919	3,596,584	4,004,465	12,950,149	90,501,480

Stated as percentages the figures in the preceding table are shown below :—
AUSTRALIAN IMPORTS OF PRODUCTS OF VARIOUS COUNTRIES.—PERCENTAGES.

Nature of Imports.	Year.	United Kingdom.	France.	Germany.	Japan.	U.S. of America.	All Countries.
		%	%	%	%	%	%
Foodstuffs of animal origin	1913 ..	31.77	0.33	1.27	0.74	30.52	100
	1933-34	23.72	0.11	0.12	3.03	15.50	100
	1934-35	19.59	0.12	0.06	4.02	18.29	100
	1935-36	17.50	0.09	0.00	4.58	15.30	100
	1936-37	18.61	0.08	0.08	4.05	16.62	100
Spirituous and alcoholic liquors	1913 ..	63.04	17.64	7.37	0.09	0.14	100
	1933-34	85.41	8.96	0.36	0.00	0.04	100
	1934-35	82.59	9.11	0.88	0.00	0.24	100
	1935-36	86.57	7.14	0.30	0.00	0.24	100
	1936-37	84.92	8.37	0.36	0.01	0.05	100
Apparel, textiles, and manufactured fibres	1913 ..	61.48	4.82	8.59	2.39	3.13	100
	1933-34	54.73	2.37	2.10	15.64	1.55	100
	1934-35	57.23	1.82	2.02	18.46	1.89	100
	1935-36	54.80	1.50	2.83	18.64	1.62	100
	1936-37	61.32	1.37	2.89	13.06	0.66	100
Metals, metal manufactures, and machinery	1913 ..	64.17	1.00	10.98	0.04	17.62	100
	1933-34	63.24	0.02	1.35	1.02	19.01	100
	1934-35	57.06	0.25	3.34	0.91	26.01	100
	1935-36	53.76	0.12	4.14	0.94	27.17	100
	1936-37	59.17	0.16	4.93	0.91	22.22	100
Paper and stationery	1913 ..	57.41	0.70	8.50	0.34	12.88	100
	1933-34	62.24	1.17	2.73	0.92	4.61	100
	1934-35	59.21	1.17	2.78	1.11	5.18	100
	1935-36	57.64	1.00	3.93	1.49	5.52	100
	1936-37	51.27	0.96	3.95	1.39	5.36	100
Jewellery, time-pieces, and fancy goods	1913 ..	36.14	6.11	18.28	1.34	9.58	100
	1933-34	22.07	2.70	12.70	22.39	2.35	100
	1934-35	21.84	1.93	11.32	17.75	4.43	100
	1935-36	19.48	1.64	10.71	16.37	5.95	100
	1936-37	19.39	2.14	12.21	15.76	6.67	100
Earthenware, cements, glass, etc.	1913 ..	41.52	2.57	28.94	1.37	4.02	100
	1933-34	51.14	1.93	5.62	17.82	7.64	100
	1934-35	51.72	0.68	7.52	15.63	7.76	100
	1935-36	52.01	0.48	10.91	13.48	7.56	100
	1936-37	52.42	0.78	9.43	10.34	4.49	100
Drugs, chemicals, and fertilizers	1913 ..	37.49	9.02	11.18	5.11	7.74	100
	1933-34	41.75	7.65	8.88	3.00	14.49	100
	1934-35	44.15	5.90	9.35	3.30	14.08	100
	1935-36	43.53	4.94	8.06	4.02	14.34	100
	1936-37	41.64	4.61	10.85	2.88	12.55	100
Rubber and leather and manufactures thereof, and substitutes therefor	1913 ..	28.26	4.00	20.21	0.04	25.27	100
	1933-34	23.74	1.06	3.36	2.80	8.20	100
	1934-35	19.84	0.50	2.46	3.67	7.24	100
	1935-36	18.46	0.50	2.37	3.39	8.29	100
	1936-37	13.16	0.28	1.93	2.30	4.53	100
Total, above-mentioned articles	1913 ..	58.38	3.61	10.68	1.24	10.86	100
	1933-34	55.62	1.99	3.69	7.79	9.15	100
	1934-35	54.23	1.44	3.39	8.11	12.95	100
	1935-36	51.70	1.10	4.15	7.27	14.67	100
	1936-37	54.74	1.04	4.70	5.26	12.04	100
Total imports (less bullion and specie)	1913 ..	52.37	2.84	8.99	1.22	13.95	100
	1933-34	42.31	1.61	3.23	6.19	13.19	100
	1934-35	42.51	1.19	2.06	6.30	15.25	100
	1935-36	40.51	0.95	3.55	5.95	16.64	100
	1936-37	42.56	0.95	3.07	4.42	14.30	100

The total value of the commodities included in the competitive classes increased from £55,082,613 during 1913 to £122,631,560 during 1926-27, but declined during the economic depression to £29,576,008 in 1931-32. Subsequently the total value rose to £62,790,923 in 1936-37. The principal classes of competitive imports are (a) metals, metal manufactures and machinery (value £27,277,464 in 1936-37) and (b) apparel, textiles and manufactured fibres (value £18,050,604 in 1936-37). The value of goods included in these two groups represented 72 per cent. of the total value of competitive commodities during 1936-37.

In 1936-37 the United Kingdom supplied 54.74 per cent. of the total value of competitive goods. In 1913 the corresponding figure was 58.38 per cent. and in 1935-36 51.70 per cent. In five of the nine competitive groups of imports, the proportion supplied by the United Kingdom declined during 1936-37 as compared with the previous year. In the four groups—foodstuffs of animal origin; apparel, textiles and manufactured fibres; metals, metal manufactures and machinery; and earthenware, cements, glass, etc.—which reported gains, the share of the total purchases supplied by the United Kingdom was 18.61 per cent., 61.32 per cent., 59.17 per cent., and 52.42 per cent. respectively.

The share of Japan in the competitive trade increased in proportion to other countries from 1.24 per cent. in 1913 to 8.11 per cent. in 1934-35, but declined appreciably during the next two years to 5.26 per cent. in 1936-37. The most important classes of competitive goods imported from Japan are silk piece goods, cotton and linen piece goods, yarns, crockery, fancy goods and sulphur. The total value of imports from Japan in the competitive groups during 1936-37 was £3,305,064. and of this total silk piece goods valued at £1,289,110 represented 39 per cent., and cotton and linen piece goods valued at £543,192 represented 16 per cent., or together 55 per cent. of the total competitive goods imported from Japan.

The position of the United States of America in the competitive trade improved from 10.86 per cent. in 1913 to 23.52 per cent. in 1928-29; after 1929-30 it declined progressively to 8.17 per cent. in 1932-33, but recovered somewhat in recent years and in 1936-37 represented 12.04 per cent. of the total. Of the total competitive trade from this country approximately 80 per cent. was represented by metals, metal manufactures and machinery.

The position of France declined from 3.61 per cent. in 1913 to 1.04 per cent. in 1936-37. Apparel, textiles, and drugs, chemicals and fertilizers are the most important imports from France.

The proportion of the imports supplied by Germany was 10.68 per cent. in 1913, 0.86 per cent. in 1923-24, and 4.70 per cent. in 1936-37. The principal classes of imports from Germany are manufactured metals and machinery, apparel and textiles, and drugs and chemicals.

§ 15. Oversea Trade in Calendar Years.

For the purpose of comparison with countries which record overseas trade in calendar years the following table has been compiled to show Australian imports and exports for each quarter of the calendar years 1934 to 1937:—

OVERSEA TRADE, AUSTRALIA.—CALENDAR YEARS.

Year.	Merchandise.		Bullion and Specie.		Total.	
	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.
	£ Stg.1,000.	£1,000.	£ Stg.1,000.	£1,000	£ Stg.1,000	£1,000
QUARTER ENDED MARCH.						
1934 ..	14,063	{ (R) 32,884 (S) 20,255 }	318	{ (R) 2,003 (S) 2,130 }	14,981	{ (R) 35,547 (S) 28,385 }
1935 ..	18,317	{ (R) 28,890 (S) 23,005 }	389	{ (R) 2,221 (S) 1,777 }	18,706	{ (R) 31,111 (S) 24,842 }
1936 ..	21,450	{ (R) 38,157 (S) 30,404 }	349	{ (R) 3,010 (S) 2,408 }	21,805	{ (R) 41,167 (S) 32,872 }
1937 ..	21,521	{ (R) 43,358 (S) 34,017 }	482	{ (R) 3,483 (S) 2,788 }	22,003	{ (R) 40,841 (S) 37,405 }

OVERSEA TRADE, AUSTRALIA.—CALENDAR YEARS—(continued).

Year.	Merchandise.		Bullion and Specie.		Total.	
	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.
	£ Stg. 1,000.	£ 1,000.	£ Stg. 1,000.	£ 1,000.	£ Stg. 1,000.	£ 1,000.

QUARTER ENDED JUNE.

1934 ..	15,042	{ (R) 18,391 (S) 14,683 }	343	{ (R) 2,900 (S) 2,320 }	16,285	{ (R) 21,201 (S) 17,003 }
1935 ..	17,307	{ (R) 26,121 (S) 20,854 }	436	{ (R) 2,623 (S) 2,099 }	17,803	{ (R) 28,744 (S) 22,953 }
1936 ..	19,955	{ (R) 24,095 (S) 19,230 }	465	{ (R) 3,000 (S) 2,399 }	20,420	{ (R) 27,095 (S) 21,638 }
1937 ..	23,367	{ (R) 36,068 (S) 28,797 }	502	{ (R) 3,961 (S) 3,168 }	23,860	{ (R) 40,029 (S) 31,965 }

QUARTER ENDED SEPTEMBER.

1934 ..	18,398	{ (R) 17,106 (S) 13,657 }	434	{ (R) 2,630 (S) 2,104 }	18,832	{ (R) 19,736 (S) 15,761 }
1935 ..	20,122	{ (R) 19,913 (S) 15,898 }	397	{ (R) 2,954 (S) 2,363 }	20,510	{ (R) 22,867 (S) 18,261 }
1936 ..	22,803	{ (R) 21,879 (S) 17,468 }	563	{ (R) 3,470 (S) 2,776 }	23,366	{ (R) 25,349 (S) 20,244 }
1937 ..	27,260	{ (R) 29,286 (S) 23,382 }	523	{ (R) 4,345 (S) 3,475 }	27,783	{ (R) 33,631 (S) 26,857 }

QUARTER ENDED DECEMBER.

1934 ..	18,330	{ (R) 30,413 (S) 24,282 }	438	{ (R) 2,982 (S) 2,386 }	18,777	{ (R) 33,395 (S) 26,668 }
1935 ..	21,087	{ (R) 39,754 (S) 31,740 }	527	{ (R) 4,070 (S) 3,255 }	22,514	{ (R) 43,824 (S) 34,995 }
1936 ..	22,890	{ (R) 45,146 (S) 36,045 }	501	{ (R) 3,502 (S) 2,801 }	23,400	{ (R) 48,648 (S) 38,846 }
1937 ..	29,530	{ (R) 41,208 (S) 32,901 }	494	{ (R) 4,406 (S) 3,523 }	30,024	{ (R) 45,614 (S) 36,424 }

TOTAL FOR YEAR.

1934 ..	67,342	{ (R) 98,794 (S) 78,877 }	1,533	{ (R) 11,175 (S) 8,040 }	68,875	{ (R) 109,969 (S) 87,817 }
1935 ..	77,793	{ (R) 114,678 (S) 91,557 }	1,749	{ (R) 11,868 (S) 9,194 }	79,542	{ (R) 126,546 (S) 101,051 }
1936 ..	87,113	{ (R) 129,277 (S) 103,210 }	1,878	{ (R) 12,982 (S) 10,384 }	88,991	{ (R) 142,259 (S) 113,600 }
1937 ..	101,678	{ (R) 149,920 (S) 119,697 }	2,001	{ (R) 16,195 (S) 12,954 }	103,679	{ (R) 166,115 (S) 132,651 }

(R) Recorded values, Australian currency.

(S) British currency values.

§ 16. Excise.

Although excise goods have no immediate bearing on oversea trade the rates of excise duty are in some cases related to the import duty on similar goods. Moreover as the Excise Acts are administered by the Department of Trade and Customs it is convenient to publish here the quantities of Australian produce on which excise duty has been paid. Particulars of Customs and Excise Revenue are shown in Chapter XXVII.—Public Finance, B. § 2.

QUANTITIES OF SPIRITS, BEER, TOBACCO, ETC., ON WHICH EXCISE DUTY
WAS PAID.—AUSTRALIA.

Article.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Spirits—	proof gal.	proof gal.	proof gal.	proof gal.	proof gal.
Brandy (Pure Australian Standard Brandy) ..	166,229	171,067	181,428	186,603	193,923
Brandy (Blended Wine Brandy, etc.) ..					
Gin (Distilled from Barley, Malt, Grain, or Grape Wine, etc.) ..	169,776	199,328	221,370	229,870	282,349
Whisky (Australian Standard Malt Whisky) ..	143,217	164,875	157,359	150,238	158,515
Whisky (Australian Blended Whisky) ..					
Rum (Australian Standard Rum) ..	318,058	323,938	337,562	337,484	326,249
Liqueurs ..	2,833	3,506	3,661	4,758	5,591
Spirits, n.e.i. ..	25	50	28	195	415
Spirits for Industrial or Scientific Purposes ..	104,198	111,860	114,622	112,498	112,594
Spirits for Fortifying Wine (Distilled from Doradillo Grapes) ..	662,103	669,498	759,257	804,760	786,836
Spirits for Fortifying Wine					
Spirits for making Vinegar	15,820	17,377	19,138	18,464	15,496
Amylic Alcohol and Fusel Oil ..	25	16	27	39	27
Concentrated Grape Must ..	9,895	7,163	36,448	(a)	(a)
Total, Spirits ..	1,592,179	1,668,678	1,830,900	1,844,909	1,881,995
Spirit for manufacture of Scents, etc. ..	llq. gal.	llq. gal.	llq. gal.	llq. gal.	llq. gal.
	44,805	50,328	55,093	58,864	45,541
Beer ..	gal.	gal.	gal.	gal.	gal.
	53,301,143	58,079,741	64,090,532	70,260,813	79,246,025
Tobacco — Manufactured, n.e.i. ..	lb.	lb.	lb.	lb.	lb.
	13,735,473	13,915,260	14,556,348	14,948,726	15,462,073
Tobacco—Hand-made ..	152,451	173,302	41,903	40,019	47,418
Tobacco—Unmanufactured, etc. ..	..	..	..	..	887,264
Total, Tobacco ..	13,887,924	14,088,562	14,598,251	14,988,745	16,396,755
Cigars—Machine-made ..	46,131	55,040	53,770	61,088	63,613
Cigars—Hand-made ..	214,067	200,007	168,036	195,553	204,475
Total, Cigars ..	260,198	255,047	221,806	256,641	268,088

QUANTITIES OF SPIRITS, BEER, TOBACCO, ETC., ON WHICH EXCISE DUTY
WAS PAID—AUSTRALIA—*continued.*

Article.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	lb.	lb.	lb.	lb.	lb.
Cigarettes—Machine-made	4,517,558	4,769,793	5,189,509	5,651,755	6,203,852
Cigarettes—Hand-made ..	440	271	556	169	272
Total, Cigarettes ..	4,517,998	4,770,064	5,190,065	5,651,924	6,204,124
	60 papers or tubes.	60 papers or tubes.	60 papers or tubes.	60 papers or tubes.	60 papers or tubes.
Cigarette Tubes and Papers	69,637,478	73,828,386	81,590,257	86,588,851	90,046,428
	gross of boxes.	gross of boxes.	gross of boxes.	gross of boxes.	gross of boxes.
Matches	3,086,433	3,355,327	2,994,258	3,095,260	3,260,806
	gal.	gal.	gal.	gal.	gal.
Petrol	23,351,682	28,405,489	28,831,464	33,059,655	31,978,588
	doz. packs.	doz. packs.	doz. packs.	doz. packs.	doz. packs.
Playing Cards	109,079	112,229	107,127	122,639	109,907

(a) Not available.

§ 17. Interstate Trade.

Prior to the federation of the Australian Colonies (now States), each Colony published statistics of its trade with the other Colonies. A similar record was continued by the Commonwealth Government under the provisions of the Constitution Act (Section 93). On the expiry of the "book-keeping" period, these records were discontinued as from 13th September, 1910, and the latest published statements were for the year 1909. Later the Governments of Western Australia and Tasmania revived the records, and statistics of the subject are available again for those States.

At the Conference of Statisticians held in January, 1928, it was resolved that efforts should be made in other States to record the interstate movement of certain principal commodities.

The Government Statist for South Australia publishes some figures for that State made up from the records of Western Australia and Tasmania, and from various other sources. The statistics of interstate trade for New South Wales, Victoria and Queensland are very meagre. The Melbourne Harbour Trust publishes, in its annual report, the quantities of various commodities of interstate trade loaded and discharged in the Port of Melbourne. The trade with individual States is not disclosed.

CHAPTER XVII.—LABOUR, WAGES AND PRICES.

A.—RETAIL PRICES AND PRICE INDEXES.

§ 1. Collection of Returns of Retail Prices and Rents.

The retail prices of an extensive range of articles and services in common demand are collected by the Bureau at frequent intervals from representative retail establishments in the more important towns throughout the Commonwealth. The prices of a less extensive range of commodities are also collected at annual intervals from most towns of any significant size, the total number of towns so covered reaching approximately 200.

Definite standards of quality have been established for each article in order to ensure that, as far as care and effort can make it possible, prices for articles of identical grade or quality will be recorded at all times and for all places. These standards, which are incorporated in printed "specifications", are closely watched and revised from time to time to keep them in harmony with changing trade practices and conditions.

The actual collection of the data is carried out, under the direct supervision of the State Statisticians by specially qualified officers of the Bureau, while a supervising field officer is provided to assist in the co-ordination of activities in the several States. The prices of food are obtained, where practicable, from about ten retailers in each of the capital cities, and from about five retailers in the provincial towns. Tradespeople and agents are carefully selected in order to ensure the supply of representative figures for the whole of each town, and returns are carefully verified if there should be any doubt as to the accuracy of the information supplied. The movement in wholesale prices of commodities is used as a check when the indicated movement of retail prices appears to be abnormal.

Returns of rents are made in the middle of each quarter by a representative number of house-agents in each town, for brick and wooden houses respectively, classified according to the number of rooms. The returns from the larger cities and towns show the rents of individual houses, all of which are inspected by the Bureau's field officers. The returns from the smaller provincial towns are in the form of averages supplied by house-agents. As opportunity permits the system of listing and inspecting individual houses in provincial towns is being extended.

§ 2. Compilation of Indexes of Retail Prices and Rents.

1. **General.**—The methods adopted for the compilation of indexes of retail prices and rents are very briefly described below. For a more detailed explanation, and an analysis of the problems involved, the reader should refer to Labour Report No. 28 and the Appendix to Labour Report No. 9.

2. **The Regimen.**—The "regimen" from which the retail price indexes are compiled consists of a list of those commodities and services which most commonly enter into the consumption of the average household. The regimen is divided into the following distinct groups and sections:—

Group.		RETAIL PRICES.		Sections.
I. Food and Groceries ..	..	..	{	A.—Groceries.
			{	B.—Dairy Produce.
			{	C.—Meat.
II. Housing ..	..	..	{	D.—House Rent.
			{	E.—Clothing—Man.
			{	F.—Clothing—Woman.
III. Clothing ..	..	..	{	G.—Clothing—Boy (10½ years).
			{	H.—Clothing—Girl (7 years).
			{	J.—Clothing—Boy (3½ years).
			{	K.—Household Drapery.
IV. Miscellaneous ..	..	..	{	L.—Household Utensils.
			{	M.—Fuel and Light.
			{	N.—Other Miscellaneous.

An index (the "All Items" or "C" series) is compiled for the whole of the above groups, but for many purposes indexes are required for each group or section separately.

A list of the articles and services included in the various sections is published in the Labour Report.

3. **The Mass Units.**—The “mass units” or “multipliers” represent the estimated annual consumption per head in Australia of the units of quantity adopted for the various items in each of the sections. In the case of food and groceries the mass units are approximately the annual average consumption per head for household purposes of the various articles during the years 1927 to 1929. In the case of housing the mass unit is the multiplier applied to the weekly rental to raise it to an annual basis. In the case of Sections E to L the mass units represent the estimated annual consumption per head of the articles included in these sections. In the case of fuel and light the mass units represent the estimated consumption per household, while in Section N the actual amounts necessary to cover the estimated cost of the services included for an average household are used as multipliers.

It will be noted that the mass units are all on an annual *per capita* basis. In the tabulation for index-number purposes, the figures are raised to a “total population” basis, by multiplying the aggregate cost of each group or section by the numbers of the population properly applicable to it. Thus food and groceries is multiplied by the whole population; housing by the total number of households; the clothing sections by the proportions of the population applicable to each; and the Sections K to M (miscellaneous) by the total number of households. The resultant index-numbers measure changes, therefore, in the cost to the whole population of the commodities and services included.

4. **Relative Importance of the Groups and Sections.**—The relative importance of the groups and sections in the “All Items” (“C” series) index for Melbourne for the December quarter of 1937 was as follows:—

Group.	Section.	Percentage of Total Aggregate Cost.
I. Food and Groceries	A.—Groceries	13.2
	B.—Dairy Produce	10.4
	C.—Meat	11.2
II. Housing	D.—House Rent (4 and 5 rooms)	24.1
	E.—Man	8.3
	F.—Woman	8.9
III. Clothing	G.—Boy 10½ years	1.6
	H.—Girl, 7 years	1.1
	J.—Boy, 3½ years	0.6
	K.—Household Drapery	1.2
IV. Miscellaneous	L.—Household Utensils	0.5
	M.—Miscellaneous and Light	5.5
	N.—Other Miscellaneous	13.4
		100.0

5. **Base Periods of the Indexes.**—The base period originally adopted by the Bureau for its retail price indexes was the year 1911. When the collection of the prices of clothing and miscellaneous items was undertaken for the purposes of the “All Items” (“C” series) index, the month of November, 1914, was adopted as the base period for this series. The desirability of computing retail price indexes to a post-war base was considered by a Conference of Statisticians in 1929, and it was resolved that from 1st January, 1930, the five years 1923-27 should be adopted as the base period. Commencing with the year 1930, therefore, the retail price indexes have been published on this basis. The aggregate to which all index-numbers are related is the weighted average cost of the regimen in the six capital cities during the period taken as base.

6. **The Methods of Tabulation.**—The prices (converted to pence) received from each retailer for each item of the regimen are added together and divided by the number of individual prices. These averages are then multiplied by their respective mass units. The sum of these products for each section or group of the regimen is then multiplied by the population factor applicable to such section or group. The aggregate so produced for any section, group or combination thereof for the period taken as the base of the indexes is regarded as equal to 1,000. The index-number for any other period is then calculated by applying to 1,000 the ratio which the aggregate for such period bears to the base aggregate.

§ 3. The Food and Rent ("B" Series) Index of Retail Prices.

1. *General.*—This index measures the prices of food and groceries and the rent of 4 and 5-roomed houses. It was first compiled in respect of the year 1925, and index-numbers were retrospectively computed for the several earlier years shown below. It was designed to replace the "A" series index (food, groceries and rent of all houses), which was the original index first compiled by the Bureau in 1912. Owing, however, to the continued use of the latter index by Industrial Tribunals for the purpose of adjusting wages to variations in retail prices, the "B" series index never replaced the "A" series in this connexion.

2. *Retail Price Index-Numbers: Capital Cities, 1907 to 1937.*—Index-numbers computed separately for each group of the regimen, and the weighted average for both groups together, for the capital city of each State are shown in the next table.

RETAIL PRICE INDEX-NUMBERS: CAPITAL CITIES. ("B" SERIES).

(Base of each Section: Weighted Average of Six Capital Cities, 1923-37 = 1,000.)

City.	1907.	1911.	1914.	1921.	1933.	1934.	1935.	1936.	1937.
FOOD AND GROCERIES.									
Sydney	523	553	646	1,062	800	825	840	848	868
Melbourne	517	523	610	1,063	713	748	784	809	836
Brisbane	530	569	603	1,014	699	727	763	791	828
Adelaide	532	570	679	1,066	731	767	780	798	826
Perth	670	753	728	1,116	757	807	821	853	881
Hobart	565	592	678	1,133	757	786	792	827	870
Weighted Average (a) ..	533	559	640	1,064	751	783	806	825	851
HOUSING (4 AND 5 ROOMS).									
Sydney	593	701	769	989	864	869	891	930	965
Melbourne	455	569	628	820	801	808	850	882	909
Brisbane	283	373	466	630	681	691	720	766	822
Adelaide	510	706	655	809	694	700	736	795	832
Perth	458	524	589	739	795	794	792	844	861
Hobart	405	452	518	881	860	865	890	908	899
Weighted Average (a) ..	497	612	662	862	804	810	839	879	912
FOOD, GROCERIES, AND HOUSING.									
Sydney	548	666	687	1,036	822	840	858	878	904
Melbourne	495	539	610	977	742	769	808	835	862
Brisbane	442	500	554	877	690	713	747	781	824
Adelaide	524	618	671	975	716	742	764	796	826
Perth	594	672	679	982	768	802	810	849	871
Hobart	508	542	621	1,044	792	814	827	856	879
Weighted Average (a) ..	520	578	618	975	768	792	818	844	872

(a) For Six Capital Cities.

§ 4. The All Items ("C" Series) Index of Retail Prices.

1. *General.*—This index measures the prices of food and groceries, rent of 4 and 5-roomed houses, clothing and miscellaneous household requirements, and for convenience of reference has been designated the "All Items" ("C" series) index. It has become more important in recent years because of its adoption by the Commonwealth Arbitration Court from 1st May, 1934, for the adjustment of wages controlled by that Court. It is used at present as the basis of the "Court" series of index-numbers adopted from July, 1937, by the same Court.

The compilation of this series was undertaken by the Bureau following a recommendation of the Royal Commission on the Basic Wage, which reported in 1920 and 1921. The Commission itself had collected data on prices in the capital cities for the month of November, 1914 to 1920 inclusive. In consequence the Bureau commenced its own more comprehensive inquiries in the five principal towns of each State, as from November, 1921, and continued them at quarterly intervals thereafter.

2. Retail Price Index-Numbers : Thirty Towns, November 1921 to June Quarter 1938.—The following table gives index-numbers representing the variations in the prices, in 30 of the more important towns, of food and groceries, housing, clothing, and miscellaneous household requirements combined.

RETAIL PRICE INDEX-NUMBERS : THIRTY TOWNS ("C" SERIES) ALL ITEMS OF HOUSEHOLD CONSUMPTION.

(Base : Weighted Average of Six Capital Cities, 1923-37 = 1,000.)

State and Town.	Nov- ember, 1921.	Year 1929.	Year 1931.	Year 1932.	Year 1933.	Year 1934.	Year 1935.	Year 1936.	Year 1937.	1938.	
										Mar. Qtr.	June Qtr.
NEW SOUTH WALES—											
Sydney ..	1,046	1,073	922	867	832	842	852	866	889	900	908
Newcastle ..	1,041	1,028	888	840	819	834	856	853	849	860	873
Broken Hill ..	975	1,018	882	834	806	819	819	848	893	925	937
Goulburn ..	1,033	1,108	922	877	843	852	860	864	867	879	890
Bathurst ..	947	979	867	820	801	807	814	833	842	850	856
Weighted Average, 5 Towns ..	1,042	1,067	918	863	830	841	852	865	886	897	906
VICTORIA—											
Melbourne ..	1,003	1,017	846	813	789	801	824	844	868	881	892
Ballarat ..	992	957	808	776	760	781	803	826	839	841	846
Bendigo ..	1,002	960	833	808	789	811	820	821	840	844	850
Geelong ..	1,019	950	822	794	772	782	824	848	855	866	879
Warrnambool ..	1,034	960	860	838	812	826	850	851	856	874	887
Weighted Average, 5 Towns ..	1,003	1,011	843	811	787	801	824	843	866	878	889
QUEENSLAND—											
Brisbane ..	923	923	798	764	751	762	780	804	837	846	850
Toowoomba ..	949	916	816	788	778	785	785	802	840	841	844
Rockhampton ..	972	904	806	779	752	759	776	802	840	849	854
Townsville ..	..	1,026	914	878	850	851	852	866	883	895	901
Bundaberg ..	..	..	..	..	..	..	..	..	809	821	833
Weighted Average 5 Towns ..	941a	922a	801a	768a	753a	764a	780a	803a	840	849	853
SOUTH AUSTRALIA—											
Adelaide ..	989	1,037	837	802	789	806	820	839	859	878	880
Kadina, etc. ..	998	943	801	772	747	758	763	765	769	776	787
Port Pirie ..	1,025	980	834	791	762	778	789	813	844	858	866
Mount Gambier ..	1,020	963	831	816	800	800	809	818	830	841	846
Peterborough ..	948	1,043	884	848	832	832	833	843	851	863	868
Weighted Average, 5 Towns ..	992	1,030	836	801	787	804	817	835	855	873	884
WESTERN AUSTRALIA—											
Perth, etc. ..	1,008	1,026	885	840	811	830	834	856	869	873	886
Kalgoorlie, etc. ..	1,048	1,032	937	940	937	975	1,011	1,027	1,030	1,031	1,052
Northam ..	1,030	1,022	878	844	814	825	829	860	890	894	904
Bunbury ..	1,045	978	877	842	824	843	865	880	897	900	914
Geraldton ..	1,056	1,051	951	904	851	866	886	933	970	951	961
Weighted Average, 5 Towns ..	1,020	1,026	891	852	825	842	848	870	884	887	900
TASMANIA—											
Hobart ..	1,070	1,000	875	844	825	837	849	860	875	885	885
Launceston ..	1,067	967	865	832	817	828	834	840	856	866	870
Burnie ..	1,003	966	837	811	775	780	792	811	844	862	863
Devonport ..	904	948	831	800	773	787	801	809	833	846	844
Queenstown ..	1,031	972	881	875	867	876	873	850	857	858	876
Weighted Average, 5 Towns ..	1,057	986	869	838	820	831	841	850	866	876	877
Weighted Average, 30 Towns ..	1,013	1,026	870	829	803	816	831	848	871	882	891
Weighted Average for 6 Capital Cities ..	1,013	1,033	873	830	804	817	832	850	873	885	894

(a) Includes Charters Towers and Warwick in place of Townsville and Bundaberg.

3. Retail Price Index-Numbers : Capital Cities, 1914 to 1920.—The next table gives index-numbers representing the variations in the prices, in each capital city, of all items of household consumption combined. The index-numbers for the clothing and miscellaneous groups were compiled from data collected by the Royal Commission on the Basic Wage.

RETAIL PRICE INDEX—NUMBERS: CAPITAL CITIES ("C" SERIES). ALL ITEMS OF HOUSEHOLD CONSUMPTION.

(Base of each Group: Weighted Average of Six Capital Cities 1923-27 = 1,000.)

Period.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.	Six Capitals.
FOOD AND GROCERIES.							
Nov. 1914 ..	638	616	614	683	746	687	641
" 1915 ..	844	835	860	858	819	858	842
" 1916 ..	833	791	748	835	854	807	812
" 1917 ..	877	798	825	805	828	949	836
" 1918 ..	877	843	882	862	816	918	861
" 1919 ..	1,073	975	1,069	1,012	987	1,041	1,026
" 1920 ..	1,225	1,220	1,117	1,225	1,113	1,293	1,209
HOUSING (4 AND 5 ROOMS).							
Nov. 1914 ..	758	608	463	611	586	525	649
" 1915 ..	780	611	472	574	581	571	659
" 1916 ..	791	625	467	573	592	574	665
" 1917 ..	797	657	492	606	602	586	685
" 1918 ..	832	699	526	656	619	614	722
" 1919 ..	866	744	604	707	650	746	768
" 1920 ..	980	807	634	783	718	904	851
FOOD, GROCERIES AND HOUSING.							
Nov. 1914 ..	680	613	560	658	689	630	644
" 1915 ..	825	756	722	758	734	756	777
" 1916 ..	818	732	648	742	761	724	760
" 1917 ..	848	748	707	734	748	820	782
" 1918 ..	861	792	756	789	746	810	812
" 1919 ..	1,000	893	904	904	867	936	934
" 1920 ..	1,138	1,074	945	1,068	973	1,155	1,082
CLOTHING.							
Nov. 1914 ..	755	780	657	756	698	825	754
" 1915 ..	805	797	690	821	760	833	792
" 1916 ..	903	870	779	919	849	940	881
" 1917 ..	1,009	976	899	1,049	980	1,041	992
" 1918 ..	1,102	1,103	1,025	1,066	1,135	1,200	1,097
" 1919 ..	1,237	1,213	1,102	1,303	1,277	1,344	1,238
" 1920 ..	1,323	1,422	1,274	1,384	1,359	1,430	1,365
MISCELLANEOUS.							
Nov. 1914 ..	766	728	728	770	780	699	749
" 1915 ..	798	770	756	803	822	770	786
" 1916 ..	808	784	766	832	869	780	802
" 1917 ..	889	879	836	883	926	865	882
" 1918 ..	988	950	931	988	1,035	945	972
" 1919 ..	1,059	1,016	968	1,035	1,120	1,006	1,036
" 1920 ..	1,209	1,181	1,139	1,200	1,262	1,124	1,194
TOTAL HOUSEHOLD EXPENDITURE.							
Nov. 1914 ..	712	671	611	699	707	687	687
" 1915 ..	816	768	721	780	755	776	782
" 1916 ..	836	773	698	798	800	783	795
" 1917 ..	892	823	773	832	832	879	847
" 1918 ..	938	890	848	887	885	923	905
" 1919 ..	1,065	988	981	1,018	1,005	1,042	1,022
" 1920 ..	1,103	1,172	1,054	1,164	1,111	1,213	1,166

4. **Relative Cost of Each Group of Items.**—The following table shows for the towns covered by this Series of index-numbers the relative cost of each of the groups of household consumption :—

RETAIL PRICE INDEX-NUMBERS ("C" SERIES) ALL ITEMS OF HOUSEHOLD CONSUMPTION. RELATIVE COST OF EACH GROUP OF ITEMS.

(Base : Weighted Average Cost of All Groups in each Town = 1,000.)

State and Town.	1936.					1937.				
	Food and Groceries.	Housing (4 & 5 Rooms).	Clothing.	Miscellaneous.	Total Household Expenditure.	Food and Groceries.	Housing (4 & 5 Rooms).	Clothing.	Miscellaneous.	Total Household Expenditure.
NEW SOUTH WALES—										
Sydney	366	238	202	194	1,000	352	251	202	195	1,000
Newcastle	376	223	213	188	1,000	374	226	206	194	1,000
Broken Hill	417	172	199	212	1,000	403	174	203	220	1,000
Goulburn	363	226	229	182	1,000	363	233	211	193	1,000
Bathurst	376	217	220	187	1,000	366	223	213	198	1,000
Weighted Average 5 Towns	366	236	204	194	1,000	355	247	202	196	1,000
VICTORIA—										
Melbourne	358	231	211	200	1,000	347	242	203	208	1,000
Ballarat	379	184	230	207	1,000	368	192	217	223	1,000
Bendigo	374	190	224	212	1,000	365	198	214	223	1,000
Geelong	355	225	222	198	1,000	351	226	208	215	1,000
Warrnambool	360	219	228	193	1,000	350	233	211	206	1,000
Weighted Average 5 Towns	358	229	212	201	1,000	348	239	204	209	1,000
QUEENSLAND—										
Brisbane	367	211	218	204	1,000	356	227	209	208	1,000
Toowoomba	354	221	218	207	1,000	340	231	211	218	1,000
Rockhampton	394	168	234	204	1,000	370	200	217	213	1,000
Townsville	406a	140a	220a	234a	1,000	367	221	203	209	1,000
Bundaberg	375b	177b	221b	227b	1,000	387	164	219	230	1,000
Weighted Average 5 Towns	370	207	219	204	1,000	358	220	210	210	1,000
SOUTH AUSTRALIA—										
Adelaide	355	210	224	211	1,000	347	223	210	220	1,000
Kadina, etc.	426	110	237	227	1,000	421	112	230	237	1,000
Port Pirie	396	172	206	226	1,000	390	181	211	218	1,000
Mount Gambier	367	176	246	211	1,000	366	191	217	226	1,000
Peterborough	371	190	228	211	1,000	368	201	210	221	1,000
Weighted Average 5 Towns	359	205	225	211	1,000	351	217	211	221	1,000
WESTERN AUSTRALIA—										
Perth, etc.	371	220	215	194	1,000	365	229	205	201	1,000
Kalgoorlie, etc.	363	254	211	172	1,000	353	294	178	175	1,000
Northam	390	205	210	195	1,000	375	224	202	199	1,000
Bunbury	367	224	225	184	1,000	358	253	203	186	1,000
Geraldton	363	240	206	191	1,000	357	253	188	202	1,000
Weighted Average 5 Towns	371	223	215	191	1,000	363	235	202	200	1,000
TASMANIA—										
Hobart	357	235	224	184	1,000	358	237	206	199	1,000
Launceston	358	214	235	193	1,000	361	223	211	205	1,000
Burnie	388	204	225	183	1,000	381	220	211	186	1,000
Devonport	383	199	229	189	1,000	385	201	220	194	1,000
Queenstown	394	198	232	176	1,000	390	214	210	186	1,000
Weighted Average 5 Towns	361	225	228	186	1,000	361	230	209	200	1,000
Weighted Average for 30 Towns	364	226	212	198	1,000	354	238	204	204	1,000
Weighted Average 6 Capital Cities	363	229	209	199	1,000	351	241	204	204	1,000
CHARTERS TOWERS (Q.)	406	140	220	234	1,000	391	135	221	253	1,000
WARWICK (Q.)	375	177	221	227	1,000	368	170	225	237	1,000
PORT AUGUSTA (S.A.)	408	165	222	205	1,000	401	168	214	217	1,000

(a) Charters Towers.

(b) Warwick.

5. Retail Price Index-Numbers in Terms of Currency : Capital Cities, 1914 to 1938.—In each part of the following table the average cost of the particular regimen in the six capital cities during the five-yearly period 1923-27 has been equated to a base of 20s. od. The figures measure the variations in the prices of (i) food and groceries, (ii) housing (4 and 5 rooms), (iii) food, groceries and housing, combined, (iv) clothing, (v) miscellaneous household requirements and (vi) all items of household consumption combined.

RETAIL PRICE INDEX-NUMBERS IN TERMS OF CURRENCY : CAPITAL CITIES ("C" SERIES).

(Base of each Group : Weighted Average of Six Capital Cities, 1923-27 = 20s. od.)

Period.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.	Weighted Average of 6 Capital Cities.
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FOOD AND GROCERIES.

		s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1914		12 11	12 2	12 1	13 7	14 7	13 7	12 10
1921		21 3	21 3	20 3	21 4	22 4	22 8	21 3
1933	.. ..	16 0	14 3	14 0	14 7	15 2	15 2	15 0
1934	.. ..	16 6	15 0	14 7	15 4	16 2	15 9	15 8
1935	.. ..	16 10	15 8	15 3	15 7	16 5	15 10	16 1
1936	.. ..	17 0	16 2	15 10	16 0	17 1	16 6	16 6
1937	.. ..	17 4	16 9	16 7	16 6	17 7	17 5	17 0
1937	March Qtr.	17 5	16 4	16 10	16 3	17 4	17 3	16 11
	June "	17 2	16 6	16 5	16 5	18 1	17 4	16 10
	Sept. "	17 4	17 0	16 5	16 9	17 8	17 4	17 1
	Dec. "	17 7	17 1	16 8	16 8	17 4	17 9	17 3
1938	March "	17 7	17 0	16 8	16 10	17 8	17 6	17 3
	June "	17 10	17 6	16 9	17 4	18 2	17 7	17 7

HOUSING (4 AND 5 ROOMS).

1914	.. ..	15 2	12 7	9 4	13 1	11 9	10 4	13 3
1921	.. ..	19 9	16 5	12 7	16 2	14 9	17 7	17 3
1933	.. ..	17 3	16 0	13 7	13 11	15 11	17 2	16 1
1934	.. ..	17 5	16 2	13 10	14 0	15 11	17 4	16 2
1935	.. ..	17 10	17 0	14 5	14 9	15 10	17 10	16 9
1936	.. ..	18 7	17 8	15 4	15 11	16 11	18 2	17 7
1937	.. ..	19 4	18 2	16 5	16 8	17 3	18 0	18 3
1937	March Qtr.	19 0	18 0	16 4	16 3	17 2	17 10	18 0
	June "	19 2	18 1	16 5	16 5	17 2	17 11	18 2
	Sept. "	19 6	18 3	16 6	16 0	17 3	18 0	18 4
	Dec. "	19 7	18 5	16 7	17 1	17 4	18 2	18 6
1938	March "	19 9	18 6	16 8	17 2	17 4	18 2	18 7
	June "	20 0	18 8	16 9	17 4	17 5	18 3	18 9

FOOD, GROCERIES AND HOUSING (4 AND 5 ROOMS).

1914	.. ..	13 9	12 4	11 1	13 5	13 7	12 5	13 0
1921	.. ..	20 9	19 6	17 6	19 6	19 8	20 11	19 10
1933	.. ..	16 5	14 10	13 10	14 4	15 4	15 10	15 4
1934	.. ..	16 10	15 5	14 3	14 10	16 1	16 3	15 10
1935	.. ..	17 2	16 2	14 11	15 3	16 2	16 7	16 4
1936	.. ..	17 7	16 8	15 7	15 11	17 0	17 1	16 11
1937	.. ..	18 1	17 3	16 6	16 6	17 5	17 7	17 5
1937	March Qtr.	18 0	16 11	16 7	16 2	17 3	17 6	17 3
	June "	17 11	17 1	16 4	16 5	17 8	17 6	17 4
	Sept. "	18 1	17 5	16 5	16 9	17 6	17 7	17 6
	Dec. "	18 4	17 7	16 7	16 0	17 4	17 10	17 8
1938	March "	18 5	17 7	16 8	16 11	17 6	17 9	17 9
	June "	18 8	17 11	16 8	17 3	17 10	17 9	18 0

RETAIL PRICE INDEX—NUMBERS IN TERMS OF CURRENCY: CAPITAL CITIES ("C" SERIES)—*continued*.

(Base of each Group: Weighted Average of Six Capital Cities, 1923-27 = 20s. od.)

Year.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.	Weighted Average of 6 Capital Cities.
CLOTHING.							
1914	s. d. 15 1	s. d. 15 7	s. d. 13 2	s. d. 15 1	s. d. 14 0	s. d. 16 6	s. d. 15 1
1921	25 1	25 5	22 6	23 11	24 8	28 7	24 11
1933	14 10	16 3	15 10	16 7	16 5	17 7	15 9
1934	14 11	16 1	15 9	16 11	16 4	17 8	15 8
1935	14 11	15 11	15 5	17 1	16 6	18 1	15 8
1936	15 7	15 10	15 7	16 8	16 4	17 2	15 10
1937	16 4	16 1	15 11	16 5	16 1	16 5	16 3
1937 { March Qtr.	16 2	15 9	15 7	16 0	15 10	15 11	15 11
June ..	16 4	16 0	15 9	16 4	16 1	16 5	16 2
Sept. ..	16 5	16 1	15 11	16 7	16 3	16 7	16 3
Dec. ..	16 6	16 5	16 3	16 9	16 3	16 10	16 6
1938 { March ..	16 7	16 5	16 3	17 0	16 4	16 11	16 6
June ..	16 8	16 5	16 6	17 2	16 6	16 11	16 7

MISCELLANEOUS.

1914	15 4	14 7	14 7	15 5	15 7	14 0	15 0
1921	20 2	20 5	18 11	20 8	20 7	18 8	20 2
1933	19 9	18 4	18 0	19 8	18 11	17 2	19 0
1934	19 6	18 3	18 0	19 6	18 10	17 1	18 11
1935	19 6	18 5	18 1	19 6	18 7	17 1	18 11
1936	19 0	18 11	18 4	19 10	18 8	17 8	18 11
1937	18 9	19 7	18 10	20 5	18 11	18 9	19 2
1937 { March Qtr.	18 8	19 4	18 9	20 4	18 11	18 8	19 1
June ..	18 9	19 7	18 10	20 5	18 11	18 9	19 2
Sept. ..	18 9	19 7	18 10	20 6	18 11	18 10	19 3
Dec. ..	18 11	19 7	18 10	20 6	19 0	18 10	19 3
1938 { March ..	18 10	19 7	18 10	20 6	18 11	18 10	19 3
June ..	18 8	19 8	18 11	20 5	19 0	18 7	19 2

ALL ITEMS OF HOUSEHOLD CONSUMPTION.

1914	14 3	13 5	12 3	14 0	14 2	13 9	13 0
1921	20 11	20 1	18 6	19 9	20 2	21 5	20 3
1933	16 8	15 9	15 0	15 9	16 3	16 6	16 1
1934	16 10	16 0	15 3	16 1	16 7	16 9	16 4
1935	17 1	16 6	15 7	16 5	16 8	17 0	16 8
1936	17 4	16 11	16 1	16 9	17 1	17 2	17 0
1937	17 9	17 4	16 9	17 2	17 5	17 6	17 0
1937 { March Qtr.	17 8	17 1	16 9	16 11	17 2	17 4	17 3
June ..	17 8	17 3	16 8	17 1	17 6	17 5	17 4
Sept. ..	17 10	17 6	16 8	17 4	17 5	17 6	17 0
Dec. ..	18 0	17 7	16 11	17 5	17 4	17 9	17 8
1938 { March ..	18 0	17 7	16 11	17 7	17 6	17 8	17 8
June ..	18 2	17 10	17 0	17 9	17 9	17 9	17 11

§ 5. Retail Price Index-Numbers, 200 Towns.

1. *General.*—To supplement the information collected monthly for the 30 towns specified in the preceding sections a special investigation into prices in 70 additional towns was undertaken in November, 1913. This investigation was repeated in November, 1914, and again in November, 1915, when the number of additional towns was increased to 120. In November, 1923, the number was further increased to 170. Information in regard to prices obtained in November each year relates at present, therefore, to 200 towns. The results of the first investigation were published in Labour Bulletin No. 5 (pp. 26 to 33), and details respecting succeeding investigations are incorporated in the Labour Bulletins and Reports issued subsequently by this Bureau.

In previous issues of these publications information was given regarding movements in the rents of 4-roomed and 5-roomed houses. While the index-numbers were useful in a general way as a measure of changes in rents in any one town from time to time, there has been an increasing tendency to regard them as an adequate measure of the relative absolute levels of rents in different towns at any given date. In order to prevent such a misuse of the figures, and because of increasing doubts as to the ability of the Bureau, except at prohibitive cost, to ensure that returns of rents from all these towns shall be based on continuously representative samples, it has reluctantly been decided to limit the published information to the prices of food and groceries. Should any industrial tribunal desire further information on house rentals in any of these towns, the Bureau will be prepared to make its records available and to consider requests for special investigations by its staff of field officers.

2. *Retail Price Index-Numbers : 200 Towns, 1933 to 1937.* In the following table the base of the index-numbers has been changed from that used in previous issues of the Official Year Book. The new base is the weighted average cost of food and groceries in the six capital cities in the period 1923–27. To facilitate comparisons over a period of years, the index-numbers previously published have been recomputed and the table has been extended to include the results of the last five investigations.

RETAIL PRICE INDEX-NUMBERS—(200 TOWNS SERIES) : FOOD AND GROCERIES.

(Base : Weighted Average in Six Capital Cities, 1923–27 = 1,000.)

State and Town.	1933. November.	1934. November.	1935. November.	1936. November.	1937. November.
NEW SOUTH WALES—					
Albury	749	794	803	857	864
Armidale	729	776	821	811	853
Ballina	808	803	812	853	852
Bathurst	774	809	842	838	861
Bega	790	823	851	863	875
Berry	814	861	874	873	880
Blackheath	800	851	882	920	927
Bourke	835	847	873	901	913
Bowral	803	832	848	861	887
Broken Hill	874	924	929	977	1,036
Casino	776	790	855	900	900
Cessnock	959	792	846	849	858
Cobar	1,007	976	1,012	1,031	1,038
Cooma	855	837	895	879	883
Coonamble	844	880	918	961	921

INDEX-NUMBERS.—200 TOWNS SERIES: FOOD AND GROCERIES *continued.*

State and Town	1933. November.	1934. November.	1935. November.	1936. November.	1937. November.
NEW SOUTH WALES—con-					
<i>tinued.</i>					
Cootamundra	731	789	824	849	820
Corrimal	767	817	834	876	884
Cowra	745	808	844	860	873
Cronulla	789	833	859	876	886
Deniliquin	823	864	883	907	967
Dubbo	686	771	842	848	863
Forbes	788	823	883	862	863
Gilgandra	783	846	873	864	881
Glen Innes	758	767	807	814	816
Goulburn	770	824	846	855	888
Grafton	751	781	824	854	886
Grenfell	772	806	830	837	841
Griffith	856	908	913	940	936
Gulgong	745	782	821	855	839
Gunnedah	732	775	829	842	833
Hay	866	897	903	931	906
Inverell	770	809	848	802	831
Junee	773	817	828	876	914
Katoomba	811	833	867	885	915
Kempsey	780	810	803	811	836
Kiama	819	887	887	904	911
Kurri Kurri	752	818	808	839	838
Leeton	811	848	886	894	926
Lismore	773	782	834	886	918
Lithgow	771	854	859	809	873
Maitland	731	788	833	832	835
Moree	836	878	886	904	894
Moss Vale	782	813	844	849	895
Mudgee	684	773	819	840	860
Narrabri	770	841	877	894	901
Narrandera	801	848	864	898	896
Newcastle	803	849	880	860	882
Nowra	830	840	901	899	887
Orange	750	773	817	812	815
Parkes	782	805	843	859	903
Penrith	743	788	806	818	825
Port Kembla	797	855	866	908	905
Portland	804	841	862	857	877
Queanbeyan	796	850	884	905	953
Quirindi	833	855	864	866	890
Richmond	761	839	826	816	827
Scone	767	809	836	861	871
Singleton	755	779	826	813	830
Sydney	785	836	851	863	877
Tamworth	740	785	806	806	820

INDEX-NUMBERS.—200 TOWNS SERIES: FOOD AND GROCERIES—*continued.*

State and Town.	1933. November.	1934. November.	1935. November.	1936. November.	1937. November.
NEW SOUTH WALES—<i>continued.</i>					
Taree	748	785	848	864	889
Temora	763	803	804	823	862
Tenterfield	736	772	831	865	864
Tumut	792	810	832	837	842
Ulmarra	774	828	852	892	885
Wagga Wagga	753	797	835	850	884
Walcha	798	836	927	845	866
Wellington	754	831	818	828	829
Weston	763	792	818	835	841
Windsor	781	788	850	851	864
Wollongong	755	867	829	853	878
Wyalong	801	815	862	870	895
Yass	758	813	850	837	887
Young	774	853	855	843	867
Weighted Average for State (74 Towns)	785	834	852	863	878
VICTORIA—					
Ararat	778	828	855	918	910
Bacchus Marsh	736	788	820	860	887
Bairnsdale	781	846	862	880	879
Ballarat	732	777	818	872	800
Beechworth	784	813	828	885	890
Benalla	759	830	850	880	905
Bendigo	727	794	812	856	853
Camperdown	766	814	849	863	868
Casterton	792	835	845	888	873
Castlemaine	748	775	828	845	848
Colac	761	813	817	842	850
Creswick	743	789	838	859	863
Daylesford	765	789	813	843	865
Dunolly	741	794	835	889	872
Echuca	746	784	824	846	857
Euroa	769	803	845	875	878
Geelong	732	757	796	833	857
Hamilton	762	805	855	911	885
Healesville	763	818	831	892	917
Horsham	766	801	873	926	916
Kerang	753	819	869	895	927
Koroit	767	795	828	836	840
Korumburra	737	781	783	835	859
Kyneton	705	757	785	851	870
Lilydale	784	815	845	884	881

INDEX-NUMBERS.—200 TOWNS SERIES: FOOD AND GROCERIES—*continued*.

State and Town.	1933. November.	1934. November.	1935. November.	1936. November.	1937. November.
<i>VICTORIA—continued.</i>					
Maffra	761	785	825	901	865
Maldon	790	827	848	876	888
Maryborough	732	785	811	888	891
Melbourne	721	758	797	833	848
Mildura	843	870	903	938	977
Morwell	797	822	842	858	887
Nhill	798	853	913	956	933
Orbost	832	814	870	912	919
Portland	789	804	863	863	862
Port Fairy	761	783	820	862	840
St. Arnaud	804	851	875	930	930
Sale	784	785	827	895	890
Seymour	782	848	880	901	937
Shepparton	738	804	819	864	880
Stawell	801	861	911	949	934
Swan Hill	743	833	874	918	924
Terang	798	819	875	863	885
Traralgon	734	787	816	839	834
Wangaratta	782	787	827	880	879
Warracknabeal	750	788	828	858	881
Warragul	713	789	820	827	845
Warrnambool	740	759	785	844	834
Wonthaggi	737	794	804	895	913
Weighted Average for State (48 Towns)	728	765	803	841	854
<i>QUEENSLAND—</i>					
Ayr	803	819	825	841	867
Barcaldine	830	881	938	959	959
Bowen	816	888	885	902	902
Brisbane	696	726	780	820	835
Bundaberg	722	753	803	874	873
Cairns	814	837	887	915	914
Charleville	849	881	949	989	969
Charters Towers	779	802	876	889	887
Chillagoe	911	913	900	915	946
Cloncurry	907	930	1,030	1,026	1,031
Cooktown	887	920	963	986	989
Cunnamulla	861	894	927	938	921
Dalby	744	760	807	870	836
Gayndah	763	792	851	907	867
Gladstone	743	771	827	871	870
Goondiwindi	794	820	889	914	868
Gympie	737	773	857	849	840
Hughenden	905	891	919	931	925
Innisfail	852	907	943	974	995
Ipswich	728	745	785	820	825

INDEX-NUMBERS.—200 TOWNS SERIES: FOOD AND GROCERIES—*continued.*

State and Town.	1933. November.	1934. November.	1935. November.	1936. November.	1937. November.
QUEENSLAND—<i>continued.</i>					
Longreach	868	921	978	990	993
Mackay	772	807	872	898	895
Maryborough	716	723	794	828	835
Mount Morgan	791	831	855	891	880
Nambour	723	767	834	844	863
Rockhampton	733	764	839	864	877
Roma	805	823	877	885	870
Stanthorpe	766	775	803	817	830
Toowoomba	673	695	751	800	789
Townsville	785	817	887	904	921
Warwick	721	721	792	820	795
Winton	905	919	931	951	963
Weighted Average for State (32 Towns)	724	747	806	841	850
SOUTH AUSTRALIA—					
Adelaide	733	774	784	804	833
Freeling	731	768	804	823	845
Gawler	732	777	772	814	827
Kadina, etc.	797	849	868	890	897
Kapunda	718	762	793	812	836
Koorunga	771	790	868	879	899
Millicent	757	806	805	820	918
Mount Gambier	726	751	802	815	847
Murray Bridge	710	732	763	776	810
Peterborough	770	806	816	851	884
Port Augusta	824	864	892	926	945
Port Pirie	738	813	811	806	915
Quorn	778	801	848	841	853
Renmark	840	791	920	919	906
Victor Harbour	760	908	815	839	852
Weighted Average for State (15 Towns)	738	779	791	813	841
WESTERN AUSTRALIA—					
Albany	792	871	884	896	892
Beverley	848	873	890	918	963
Bridgetown	878	918	930	955	973
Broome	1,156	1,155	1,142	1,180	1,181
Bunbury	781	844	845	873	896
Carnarvon	971	1,008	1,032	1,082	1,127
Collie	724	862	855	901	874
Geraldton	764	835	840	960	924
Greenbushes	862	924	946	960	937
Kalgoorlie and Boulder	926	994	981	1,006	1,002

INDEX-NUMBERS.—200 TOWN SERIES: FOOD AND GROCERIES—*continued.*

State and Town.	1933. November.	1934. November.	1935. November.	1936. November.	1937. November.
WESTERN AUSTRALIA—<i>continued.</i>					
Katanning	769	844	829	884	872
Leonora and Gwalia ..	1,028	1,084	1,094	1,140	1,168
Meekatharra	1,026	1,047	1,088	1,143	1,164
Narrogin	802	873	863	910	884
Northam	792	845	850	910	905
Perth and Fremantle ..	740	813	813	863	866
Wagin	814	817	856	924	870
York	767	802	859	848	867
Weighted Average for State (18 Towns)	769	833	835	882	884
TASMANIA—					
Beaconsfield	744	801	818	841	830
Burnie	747	821	837	883	906
Campbelltown	779	814	860	878	872
Deloraine	756	788	787	795	824
Devonport	762	835	824	873	895
Franklin	817	889	896	868	905
Hobart	756	813	797	874	889
Launceston	722	786	793	844	870
New Norfolk	783	822	830	909	891
Queenstown	869	913	900	920	922
Scottsdale	729	770	780	814	829
Ulverstone	770	815	812	888	867
Zeehan	938	966	943	981	983
Weighted Average for State (13 Towns)	756	812	805	867	884
Australian Capital Territory					
Canberra (a)	857	916	931	949	965
Weighted Averages—					
Australia (200 Towns) ..	754	797	825	851	865
Thirty Towns	750	795	820	847	862
Six Capitals	746	792	817	843	859

(a) Not in Weighted Averages.

§ 6. Changes in the Regimen.

Since the original compilation of retail price indexes by the Bureau, the regimen of the several groups and sections have undergone some modifications. These are briefly referred to in the following paragraphs.

(i) *Food and Groceries.*—The regimen for food and groceries was originally introduced in 1912, and the first revision was made in the September quarter of 1932. A second revision took place in the September quarter of 1936, as part of the general revision of the regimen by the Conference of Statisticians of April, 1936. The main features of this revision are referred to in (iv) below.

(ii) *Housing*. The housing constituent of the regimen has also been revised. Originally the rentals of all houses from "3 rooms and under" to "8 rooms and over" were tabulated, and they have been continuously used since 1912 in the "A" series index. They were also used in the "All Items" index up to and including the year 1924. From the following year rentals of 4 and 5-roomed houses only were used in the "C" series index, and in the same year they were combined with food and groceries to form the "B" series index.

Since the December quarter of 1936, following on the resolutions of the 1936 Conference of Statisticians, the rentals of 4 and 5-roomed houses in certain towns have been collected and tabulated on a somewhat different basis from that previously used. The returns in the twelve more important cities and towns show the rents of individual houses, on the basis of which variations from a pre-determined standard are measured. This standard, the change in which has affected the index-numbers only in respect of the relative levels of rents in the different towns, and in respect of their absolute height, was determined by means of a special investigation of the 1933 census data relating to rentals of 4 and 5-roomed wood and brick houses occupied by fully-employed wage and salary-earners. This method not being generally applicable to the circumstances of small country towns, on account of greater diversity of average "quality" of houses, returns from these centres show the average rent of occupied houses of a defined standard.

(iii) *Clothing and Miscellaneous*. The regimen for clothing and miscellaneous household requirements was originally introduced in 1921, and the first revision was made in the March quarter of 1935. A second revision took place in the September quarter of 1936, as part of the general revision of the regimen by the Conference of Statisticians of April, 1936.

(iv) *The Revision of the Regimen by the Conference of Statisticians of April, 1936*, was of a comprehensive nature. The resolutions of the Conference were reprinted in Appendix XI. of Labour Report No. 27.

This Conference not only recommended extensive revisions of the regimen from which the indexes are compiled, but also considered methods of collection and compilation. As a result of its deliberations, and subsequent discussions by correspondence, many improvements and refinements were introduced.

The changes in the regimen were made with a view to improving the index-numbers as measures of price variations. They comprised chiefly the elimination or replacement of articles no longer in demand, or which experience had shown to be unsuitable media for the measurement of price variations: the alteration of units of quantity in certain cases to conform with those in most general use; the adjustment of the mass unit allotted to certain articles to bring them into accord with present-day consumption habits; and the re-adjustment of the population weights applicable to the several groups and sections of the regimen in accordance with the results of the 1933 Census. Definite grades or qualities were also established for each article in the regimen, to ensure that quotations should be given, as far as possible, for the same article at all times and in all places. Improved methods of collecting and weighting average house rentals were also adopted (see par. (ii) above).

B.—WHOLESALE PRICES AND PRICE INDEXES.

§ 1. General.

The data on which this section is based relate almost entirely to wholesale prices in Melbourne. An index of Sydney wholesale prices is compiled by the Government Statistician of New South Wales, and published in the *Year Book* and the *Monthly Summary of Business Statistics* of that State.

The index of Melbourne wholesale prices was first computed in 1912, and has been continued on the same lines since that year. It was resolved, however, at the Conference of Statisticians at Brisbane in 1930 that the time had come to revise and extend the items included in order to bring the index into line with changed conditions. An investigation to that end was commenced, and in the course of the past few

years, many new price-series have been collected on a monthly basis back to January, 1928. Some of these have been incorporated in a new index of the prices of basic materials and foodstuffs, preliminary index-numbers of which are currently published in the *Monthly Review of Business Statistics*. Others are being incorporated in a number of "special-purpose" indexes, which it is hoped to publish shortly. Their construction has been delayed in order to make use, for weighting purposes, of the more extensive information which is now becoming available as the result of the collection for 1936-37 of more extensive statistics of factory production. In the meantime, the original index has been continued on existing lines.

The items included in the (old) Melbourne wholesale price index comprise chiefly basic materials which in the form of raw material, food, or as a source of power, enter into production for home consumption. The purpose of the index, therefore, is to measure the changes in the prices of these particular materials rather than the changes in prices generally. As Australia does not, to any extent, manufacture from imported raw material commodities for export, the local consumption appears to give the most appropriate weighting. Any lack of uniformity in the variations of the index-numbers for these wholesale prices and for retail prices would indicate broadly changes in the relation of manufacturing and distributing charges to the cost of basic materials.

§ 2. Index-Numbers.

Index-numbers for each group of commodities and for all groups together are shown in the following table:—

MELBOURNE WHOLESALE PRICES—INDEX-NUMBERS, 1861 TO 1937.

(Base of each Group : Year 1911 = 1,000.)

Year.	I. Metals and Coal.	II. Jute, Leather, Wool, etc.	III. Agri- cultural Produce, etc.	IV. Dairy Produce.	V. Gro- ceries.	VI. Meat.	VII. Building Materials.	VIII. Chem- icals.	All Groups.
1861 ..	1,438	1,381	1,583	1,008	1,963	..	1,070	2,030	1,538
1871 ..	1,096	1,257	1,236	864	1,586	..	1,044	1,409	1,229
1881 ..	1,178	1,115	1,012	935	1,421	..	1,091	1,587	1,121
1891 ..	895	847	1,024	995	1,032	888	780	1,194	945
1901 ..	1,061	774	928	1,029	1,048	1,345	841	917	974
1911 ..	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
1914 ..	1,099	1,032	1,207	1,137	1,021	1,507	1,081	1,253	1,149
1915 ..	1,284	1,017	2,162	1,530	1,133	2,435	1,275	1,528	1,604
1916 ..	1,495	1,423	1,268	1,485	1,322	2,515	1,491	1,760	1,504
1917 ..	2,129	2,008	1,157	1,423	1,343	2,403	1,884	2,171	1,662
1918 ..	2,416	2,360	1,444	1,454	1,422	2,385	2,686	3,225	1,934
1919 ..	2,125	2,353	1,985	1,681	1,516	2,348	2,854	2,808	2,055
1920 ..	2,298	2,624	2,439	2,209	1,918	3,279	3,226	2,825	2,480
1921 ..	2,173	1,362	1,767	2,000	1,976	2,158	2,733	2,303	1,903
1922 ..	1,942	1,681	1,628	1,648	1,869	1,787	2,005	1,965	1,758
1923 ..	1,826	2,148	1,778	1,837	1,746	2,579	2,025	1,933	1,944
1924 ..	1,835	2,418	1,647	1,655	1,721	2,323	1,815	1,806	1,885
1925 ..	1,852	1,967	1,797	1,636	1,723	2,212	1,711	1,790	1,844
1926 ..	1,938	1,582	2,001	1,784	1,731	1,931	1,665	1,816	1,832
1927 ..	1,962	1,650	1,826	1,823	1,724	2,111	1,624	1,866	1,817
1928 ..	1,912	1,781	1,726	1,751	1,707	2,015	1,744	1,923	1,792
1929 ..	1,912	1,550	1,792	1,853	1,990	2,046	1,754	1,922	1,801
1930 ..	1,866	1,127	1,484	1,627	1,666	2,025	1,875	1,082	1,596
1931 ..	1,826	1,039	1,121	1,399	1,794	1,508	2,025	2,166	1,428
1932 ..	1,736	1,000	1,230	1,303	1,767	1,348	2,043	2,127	1,411
1933 ..	1,713	1,118	1,175	1,195	1,714	1,487	2,061	2,106	1,409
1934 ..	1,660	1,261	1,288	1,274	1,735	1,540	2,015	2,078	1,471
1935 ..	1,602	1,217	1,344	1,325	1,729	1,508	1,964	1,996	1,469
1936 ..	1,566	1,331	1,480	1,351	1,731	1,684	1,969	1,997	1,543
1937 ..	1,772	1,406	1,604	1,451	1,750	1,678	2,430	2,006	1,656

NOTE.—The figures given in this table are comparable in the vertical columns but are not directly comparable horizontally.

C.—WAGES.

§ 1. Operations under Wages Board and Industrial Arbitration Acts.

1. General.—Particulars regarding operations under the Commonwealth and State Acts for the regulation of wages, hours and conditions of labour were first compiled for the year 1913, and reviews to the end of each annual period appear in the Labour Reports and in the Quarterly Summaries of Australian Statistics.

2. Awards, Determinations, Industrial Agreements.—The following table gives a summary for each of the years 1933 to 1937:—

AWARDS AND DETERMINATIONS MADE AND INDUSTRIAL AGREEMENTS FILED.

State.	1933.		1934.		1935.		1936.		1937.	
	Awards or Determinations made.	Agreements Filed.	Awards or Determinations made.	Agreements Filed.	Awards or Determinations made.	Agreements Filed.	Awards or Determinations made.	Agreements Filed.	Awards or Determinations made.	Agreements Filed.
New South Wales	30	24	55	22	44	31	52	39	63	42
Victoria	138	..	90	..	101	..	141	..	121	..
Queensland	55	21	32	25	46	22	61	37	46	42
South Australia	16	1	19	3	69	9	22	17	42	16
Western Australia	10	9	12	11	17	24	24	26	35	32
Tasmania	9	3	7	1	18	..	22	..	43	..
Commonwealth Court	8	6	24	4	69	13	32	13	38	11
Commonwealth Public Service Arbitrator	1	..	..	..	4	..	2	..	3	..
Total	267	64	239	66	368	99	356	132	391	143

3. Boards Authorized, Awards, etc., in Force.—(i) *Totals for Australia.* The following table gives particulars at the dates specified for all States of Boards authorized, and including operations under the Commonwealth and State Arbitration Acts, of the number of awards, determinations and industrial agreements in force:—

BOARDS AUTHORIZED, AWARDS, ETC.—AUSTRALIA.

Dates.	Boards Authorized.	Boards which have made Awards or Determinations.	Awards or Determinations in Force.(a)	Industrial Agreements in Force.
31st December, 1913 ..	505	387(b)	575(c)	401
31st December, 1920 ..	475	440	1,041	972
31st December, 1925 ..	573	520	1,181	607
31st December, 1930 ..	642	580	1,285	601
31st December, 1934 ..	655	581	1,403	689
31st December, 1935 ..	660	583	1,435	709
31st December, 1936 ..	660	583	1,452	767
31st December, 1937 ..	660	583	1,608	806

(a) Including awards made by Arbitration Courts and the Commonwealth Public Service Arbitrator. (b) Owing to the fact that a number of awards under the New South Wales Industrial Disputes Act (1908) were still in force, the Boards constituted for such industries under the Industrial Arbitration Act (1912) had not made any awards. (c) Excluding awards or determinations which expired in New South Wales (under the Act of 1908) on 31st December, 1913.

Considerable expansion of the principle of the fixation of a legal minimum rate of wage and of working conditions took place during the period under review. At the end of 1937, the number of awards or determinations and industrial agreements* in force had increased by 1,033 and 405 respectively over the number in force at the 31st December, 1913.

* The registration of industrial agreements is not provided for under the Victorian Act, but such agreements may be registered and filed under the provisions of the Commonwealth Conciliation and Arbitration Act, and are operative within the State.

(ii) *Summary for States.* The following table gives particulars for each State and the Commonwealth of the number of Boards authorized, etc., for the years specified:—

BOARDS AUTHORIZED, AWARDS, ETC.—SUMMARY, 1913 AND 1937.

Particulars.	At 31st Dec.	Commonwealth.		N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
		Court.	Pub. Ser. Arb.							
<i>Industrial and Wages—</i>										
Boards authorized ..	{ 1913 .. 1937 ..	..	..	216 (a) 319	135 189	75 ..	56 76	.. 19	23 57	505 660
Boards which have made Determinations ..	{ 1913 .. 1937 ..	..	..	123 (b) 279	123 167	74 ..	47 65	.. 17	19 55	386 583
<i>Awards and Determinations—</i>										
In force ..	{ 1913 .. 1937 ..	17 204	.. 48	265 532	127 179	73 302	54 113	18 170	21 60	575 1,608
<i>Industrial Agreements—</i>										
In force ..	{ 1913 .. 1937 ..	228 167	..	75 140	..	5 264	11 40	82 185	.. 10	401 806
<i>Commonwealth Court Awards—</i>										
Number in force in each State ..	{ 1913 .. 1937 ..	..	..	13 141	17 156	15 48	16 118	9 45	13 91	..
<i>Commonwealth Agreements—</i>										
Number in force in each State ..	{ 1913 .. 1937 ..	..	..	132 44	129 77	68 27	62 95	57 41	61 77	..
<i>Commonwealth Public Service Arbitrator—</i>										
Number of Determinations in force in each State ..	1937 ..	..	..	42	38	32	35	32	31	..

(a) Under Industrial Arbitration Act (1926), Conciliation Committees have been appointed, and, at the end of 1937, 303 Committees were in force.

(iii) *Australian Capital Territory.* A review of the operations of the Industrial Board in the Australian Capital Territory, which was created and issued its first award in 1922, will be found in Labour Report No. 28, Chapter II., § 1.

§ 2. Rates of Wage and Hours of Labour.

1. *General.*—The collection of information respecting the current rates of wage payable in different callings and in occupations in various industries was first undertaken by the Bureau in the early part of the year 1913. The particulars are obtained primarily from awards, determinations and agreements under Commonwealth and State Industrial Acts, and therefore are the minimum rates prescribed. They refer generally to the capital city in each State, but in industries which are not carried on in the capital cities, e.g., mining, agriculture, etc., the rates in the more important centres are taken. In cases where no award, determination, or agreement is in force, particulars are taken of the ruling union or predominant rate. During recent years the number of predominant rates of wage included in the tabulations has been reduced considerably, since most of the industries and occupations are now covered by awards, determinations, or industrial agreements.

The index-numbers for male adult workers are computed with the weighted average wage in 1911 as base (= 1,000), in order that comparisons might more readily be made between these index-numbers and the retail price index-numbers (food, groceries and housing—all houses) which are also computed to the year 1911 as base. In the case of females, however, it has not been possible to secure information for years prior to 1914, and the index-numbers are therefore computed with the weighted average rate of wage payable to adult female workers in Australia at 30th April, 1914, as base (= 1,000).

An extensive tabular presentation of the minimum rates of wage for adult male and female workers in the main occupations in the capital city of each State is given each year in the Appendix to the Labour Report.

2. Weekly Rates of Wage, 1933 to 1937.—(i) *General.* The arithmetical average of the rates of wage given in the Appendix referred to is taken for each industrial group. These averages are weighted in accordance with census results to give the average of all occupations for the States and for Australia.

(ii) *Adult Males—States.* The following table gives the weighted average nominal weekly rates of wage payable to adult male workers at the dates specified :—

WAGE RATES OF ADULT MALES.

WEIGHTED AVERAGE NOMINAL WEEKLY RATES PAYABLE FOR A FULL WEEK'S WORK AND INDEX-NUMBERS OF WAGE RATES.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aus- tralia.(a)
No. of Occupations included ..	874	909	627	567	489	482	3,948

RATES OF WAGE.(b)

	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
31st December, 1933 ..	81 11	77 0	88 1	73 5	81 4	78 0	80 6
31st December, 1934 ..	83 2	78 8	88 9	75 6	84 1	79 7	82 0
31st December, 1935 ..	84 2	79 9	88 5	77 11	84 2	81 0	82 10
31st December, 1936 ..	85 6	83 1	88 7	79 6	88 6	83 3	84 10
31st March, 1937 ..	85 8	83 3	88 7	79 9	88 6	83 5	85 0
30th June, 1937 ..	86 9	83 7	90 8	81 1	88 6	83 7	85 11
30th September, 1937 ..	88 9	86 6	91 8	82 11	90 7	85 8	88 1
31st December, 1937 ..	92 1	88 1	92 8	85 10	90 10	87 0	90 2

INDEX-NUMBERS.

(Base : Weighted Average Wage for Australia (51s. 3d.), 1911 = 1,000.)

31st December, 1933 ..	1,598	1,502	1,718	1,433	1,587	1,522	1,570
31st December, 1934 ..	1,623	1,534	1,732	1,473	1,640	1,552	1,599
31st December, 1935 ..	1,642	1,555	1,725	1,520	1,642	1,581	1,617
31st December, 1936 ..	1,668	1,621	1,729	1,552	1,726	1,625	1,656
31st March, 1937 ..	1,672	1,624	1,729	1,557	1,727	1,628	1,659
30th June, 1937 ..	1,692	1,631	1,770	1,583	1,727	1,630	1,677
30th September, 1937 ..	1,732	1,687	1,780	1,618	1,768	1,671	1,718
31st December, 1937 ..	1,797	1,719	1,808	1,674	1,772	1,697	1,760

(a) Weighted average.

(b) Calculated to nearest rd.

Wages declined* in all States during the three years 1931 to 1933, the average rates at the 31st December of the latter year being approximately 17 per cent. less than those ruling at the end of 1930. Increases were granted in each of the States during the next four years but particularly in 1937, when the weighted average nominal rate for Australia was 9s. 8d. per week more than in 1933. At the 31st December, 1937, rates were highest in Queensland, followed in the order named by New South Wales, Western Australia, Victoria, Tasmania and South Australia. The highest weighted average rate for Australia was recorded during the quarter ended September, 1929, viz., 101s. 5d. per week.

(iii) *Adult Males—Industrial Groups.* The following table shows the average weekly rates of wage and index-numbers in each industrial group, and for all groups at the dates specified.

WAGE RATES OF ADULT MALES.

WEIGHTED AVERAGE NOMINAL WEEKLY RATES FOR A FULL WEEK'S WORK AND INDEX-NUMBERS OF WAGE RATES IN EACH INDUSTRIAL GROUP.

NOTE.—Index-numbers for each industrial group and for all industrial groups, based on the average wage for all groups in 1911 (51s. 3d.) as base (= 1,000). The index-numbers in this table are comparable throughout:—

Industrial Group.		Weighted Average Nominal Weekly Rate of Wage (to nearest 1d.), and Index-Number at—							
		31st Dec., 1933.	31st Dec., 1934.	31st Dec., 1935.	31st Dec., 1936.	31st March, 1937.	30th June, 1937.	30th Sept., 1937.	31st Dec., 1937.
I. Wood, Furniture, etc.	Wage ...	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
	Index-No.	82/8	85/4	86/8	88/3	88/3	89/8	91/6	95/1
II. Engineering, etc.	Wage ...	1,613	1,664	1,661	1,722	1,722	1,750	1,785	1,853
	Index-No.	81/4	83/2	85/3	86/10	87/8	89/3	91/4	94/11
III. Food, Drink, etc.	Wage ...	1,587	1,623	1,663	1,694	1,712	1,741	1,782	1,852
	Index-No.	83/3	83/8	85/3	87/3	87/3	88/10	90/0	92/6
IV. Clothing, Boots, etc.	Wage ...	1,625	1,633	1,664	1,702	1,702	1,733	1,756	1,805
	Index-No.	76/7	79/11	80/9	81/4	81/6	82/3	85/8	89/0
V. Books, Printing, etc.	Wage ...	1,494	1,559	1,576	1,587	1,590	1,605	1,672	1,737
	Index-No.	97/6	99/6	100/11	104/4	104/6	104/9	106/3	108/7
VI. Other Manu- facturing	Wage ...	1,902	1,942	1,969	2,035	2,039	2,044	2,073	2,119
	Index-No.	79/5	81/4	83/0	85/2	85/7	86/2	88/3	91/3
VII. Building	Wage ...	1,819	1,887	1,619	1,661	1,670	1,681	1,722	1,780
	Index-No.	92/3	93/8	94/2	95/7	95/7	97/0	98/8	101/7
VIII. Mining, etc.	Wage ...	1,800	1,828	1,836	1,866	1,865	1,893	1,925	1,932
	Index-No.	97/0	97/7	97/10	99/2	99/2	99/2	102/10	103/0
IX. Railways, etc.	Wage ...	1,893	1,904	1,908	1,935	1,935	1,935	2,007	2,010
	Index-No.	80/4	82/8	84/9	86/0	86/0	87/9	90/5	92/4
X. Other Land Transport	Wage ...	1,567	1,613	1,653	1,677	1,678	1,712	1,764	1,802
	Index-No.	76/9	78/9	80/1	81/8	81/8	82/11	84/5	88/3
XI. Shipping, etc. (a)	Wage ...	1,497	1,537	1,562	1,593	1,594	1,618	1,647	1,722
	Index-No.	80/9	84/8	85/2	86/8	86/8	87/0	93/11	95/6
XII. Agricultural, etc. (b)	Wage ...	1,575	1,652	1,661	1,690	1,691	1,698	1,833	1,863
	Index-No.	71/11	73/4	73/4	75/9	75/9	75/11	78/2	78/9
XIII. Domestic, etc. (b)	Wage ...	1,404	1,431	1,431	1,478	1,478	1,483	1,525	1,537
	Index-No.	74/10	75/9	76/8	79/1	79/4	80/8	81/9	85/3
XIV. Miscellaneous	Wage ...	1,460	1,478	1,496	1,543	1,548	1,574	1,595	1,603
	Index-No.	77/5	78/7	79/6	82/2	82/4	83/7	84/9	87/6
All Industrial Groups (c)		80/6	82/0	82/10	84/10	85/0	85/11	88/1	90/2
		1,570	1,599	1,617	1,656	1,659	1,677	1,718	1,760

(a) Including the value of victualling and accommodation where supplied. (b) Including the value of board and lodging where supplied. (c) Weighted average.

The foregoing table shows that the highest average weekly wage at 31st December, 1937, was recorded in Group V. (Books, Printing, etc.), 108s. 7d. per week, followed by Groups VIII. (Mining, 103s. per week; VII. (Building), 101s. 7d. per week; XI. (Shipping, etc.), 95s. 6d. per week; I. (Wood Furniture, etc.), 95s. 1d. per week; II. (Engineering, etc.), 94s. 1d. per week; III. (Food, Drink, etc.), 92s. 6d. per week. The lowest average rate was recorded in Group XII. (Agricultural, etc.), 78s. 9d. per week. During the year rates of wage increased in all groups, the greatest increases occurring in the following:—Shipping, etc., 8s. 10d. per week; Engineering, etc., 8s. 1d. per week; Clothing, Boots, etc., 7s. 8d. per week; Wood, Furniture, etc., 6s. 10d. per week; and other Land Transport, 6s. 7d. per week. The increase during the year in the weighted average rate for all groups was 5s. 4d. per week. Compared with the average rates at 31st December, 1929 (101s. 2d.), the highest point recorded for that date in any year, wages at the end of the year 1937 showed a decrease of 11s. per week.

(iv) *Adult Females—States.* The following table shows the weighted average weekly rates of wage payable to adult female workers for a full week's in each State and Australia at the dates specified.

WAGE RATES OF ADULT FEMALES.

WEIGHTED AVERAGE NOMINAL WEEKLY RATES PAYABLE FOR A FULL WEEK'S WORK AND INDEX-NUMBERS OF WAGE RATES.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Australia.(a)
No. of Occupations Included ..	85	87	37	47	24	28	308

RATES OF WAGE. (b)

	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
31st December, 1933 ..	43 2	42 9	46 9	41 0	48 4	43 1	43 5
31st December, 1934 ..	44 3	43 9	47 8	41 11	49 1	44 1	44 5
31st December, 1935 ..	44 11	44 2	48 0	42 5	49 1	44 10	45 0
31st December, 1936 ..	45 7	46 10	48 4	43 4	50 11	45 1	46 5
31st March, 1937 ..	45 8	47 1	48 6	43 6	50 11	45 2	46 7
30th June, 1937 ..	47 3	46 2	49 8	44 5	50 11	45 4	47 0
30th September, 1937 ..	47 10	47 10	50 6	45 3	51 6	47 4	48 1
31st December, 1937 ..	50 2	49 2	51 4	46 10	51 6	48 6	49 8

INDEX-NUMBERS.

(Base : Weighted Average for Australia (27s. 2d.), 30th April, 1914 = 1,000.)

31st December, 1933 ..	1,589	1,573	1,720	1,510	1,778	1,587	1,599
31st December, 1934 ..	1,628	1,609	1,755	1,541	1,809	1,623	1,636
31st December, 1935 ..	1,654	1,626	1,767	1,561	1,809	1,651	1,655
31st December, 1936 ..	1,677	1,722	1,780	1,594	1,873	1,661	1,708
31st March, 1937 ..	1,682	1,733	1,786	1,602	1,873	1,662	1,715
30th June, 1937 ..	1,739	1,700	1,828	1,634	1,873	1,669	1,720
30th September, 1937 ..	1,760	1,759	1,861	1,664	1,894	1,743	1,768
31st December, 1937 ..	1,848	1,810	1,889	1,724	1,894	1,785	1,828

(a) Weighted average.

(b) Calculated to nearest 1d.

Female rates followed the same downward course as male rates from 1931 to 1933. The weekly average nominal wage for Australia fell from 53s. 7d. in 1930 to 43s. 5d. in 1933, a decline of 10s. 2d., or 17 per cent. As with the rates for males increases were recorded in all States during the next four years, and the weighted average rate for Australia at 31st December, 1937, had advanced by 6s. 3d. per week over that ruling on 31st December, 1933. The highest weighted average rate for Australia was recorded during the quarter ended 30th September, 1929, viz., 54s. 2d. per week.

(v) *Adult Females—Industrial Groups.* The following table gives particulars of the weighted average weekly rates of wage payable to adult female workers in the industrial groups in which they are mainly employed, and in all groups combined.

WAGE RATES OF ADULT FEMALES.

WEIGHTED AVERAGE NOMINAL WEEKLY RATES PAYABLE FOR A FULL WEEK'S WORK AND INDEX-NUMBERS OF WAGE RATES IN EACH INDUSTRIAL GROUP.

Date.	Industrial Group.					
	III. Food, Drink, etc.	IV. Clothing, Boots, etc.	I., II., V., and VI., All Other Manufacturing.	XIII. Domestic, etc.(a)	XIV. Miscel- laneous.	All Groups. (b)
RATES OF WAGE.						
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
31st December, 1933..	40 6	41 11	43 5	43 4	45 11	43 5
31st December, 1934..	40 8	43 6	44 2	45 11	47 2	44 5
31st December, 1935..	42 1	44 2	44 8	46 3	46 5	45 0
31st December, 1936..	43 1	44 9	45 8	47 1	50 9	46 5
31st March, 1937 ..	43 2	45 0	45 11	47 4	50 9	46 7
30th June, 1937 ..	44 1	45 3	46 3	48 8	50 5	47 0
30th September, 1937	44 6	46 8	47 3	49 6	51 0	48 1
31st December, 1937..	45 7	48 1	49 4	51 2	53 0	49 8

INDEX-NUMBERS.

(Base : Weighted Average for Australia (27s. 2d.), 30th April, 1914 = 1,000.)

31st December, 1933..	1,491	1,542	1,599	1,594	1,691	1,599
31st December, 1934..	1,497	1,601	1,626	1,689	1,737	1,636
31st December, 1935..	1,549	1,625	1,645	1,701	1,708	1,655
31st December, 1936..	1,585	1,646	1,680	1,734	1,867	1,708
31st March, 1937 ..	1,589	1,655	1,690	1,743	1,867	1,715
30th June, 1937 ..	1,621	1,666	1,702	1,790	1,856	1,729
30th September, 1937	1,638	1,717	1,738	1,822	1,878	1,768
31st December, 1937..	1,677	1,770	1,815	1,883	1,952	1,828

(a) Including the value of board and lodging, where supplied. (b) Weighted average.

During the year 1937 rates of wage for female employees in all industrial groups showed an increase as compared with those for the previous year, the greatest increases occurring in Group XIII. (Domestic, etc.), 4s. 1d. per week; Groups I., II., V. and VI. (all other manufacturing) 3s. 8d. per week; and IV. (Clothing, Boots, etc.) 3s. 4d. per week. The weighted average for all groups increased by 3s. 3d. per week.

3. Relative Hours of Labour and Hourly Rates of Wage, 1933 to 1937.—(i) *General*. The rates of wage referred to in preceding paragraphs relate to the minimum payable for a full week's work. The number of hours constituting a full week's work differs, however, in many instances between various trades and occupations in each State, and between the same trades and occupations in the several States. In order to secure what may be for some other purposes a more adequate standard of comparison, it is desirable to reduce the comparison to a common basis, viz., the rate of wage per hour. Particulars are given in the following table classified according to States, for male and female occupations separately, at the end of the years 1933 to 1937. These particulars relate to (a) the weighted average nominal weekly wage; (b) the weighted average number of working hours constituting a full week's work; and (c) the weighted average hourly wage. The weighted average weekly wage relates to all industrial groups combined, and includes

the value of board and lodging where supplied in land occupations, and the value of victualling in marine occupations, whereas the number of working hours and the hourly wage relate to all industrial groups other than Groups XI. (Shipping), and XII. (Agricultural, Pastoral, etc.). Many of the occupations included in these two groups are of a casual or seasonal nature, and the hours of labour in the agricultural and dairying industry are not generally regulated either by awards or determinations of industrial tribunals or otherwise, hence the necessary data for the computation of the average number of working hours are not available.

The general effect of reducing the rates of wage to a common basis (i.e., per hour) is to eliminate on comparison any apparent difference between the several States which may be due to unequal working time.

(ii) *Adult Males and Females.* Particulars of the weekly and hourly wages and hours of labour for adult males and females for the last five years are given in the table hereunder:—

WEEKLY AND HOURLY WAGES AND HOURS OF LABOUR OF ADULT WORKERS

Date.	Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aus- tralia.
MALE WORKERS.								
31st Dec., 1933	Weekly Wage (a) ..	81/11	77/0	88/1	73/5	81/4	78/0	80/6
	Working Hours (b) ..	44.23	46.82	44.00	46.83	45.51	46.77	45.36
	Hourly Wage (b) ..	1/11	1/8	2/0½	1/7½	1/10	1/8½	1/9½
31st Dec., 1934	Weekly Wage (a) ..	83/2	78/8	88/9	75/6	84/1	79/7	82/0
	Working Hours (b) ..	44.23	46.82	44.00	46.83	45.51	46.77	45.36
	Hourly Wage (b) ..	1/11½	1/8½	2/0½	1/7½	1/10½	1/8½	1/10½
31st Dec., 1935	Weekly Wage (a) ..	84/2	79/9	88/5	77/11	84/2	81/0	82/10
	Working Hours (b) ..	44.18	46.74	43.69	46.63	45.48	46.75	45.26
	Hourly Wage (b) ..	1/11½	1/9	2/1	1/8½	1/10½	1/9½	1/10½
31st Dec., 1936	Weekly Wage (a) ..	85/6	83/1	88/7	79/6	88/6	83/3	84/10
	Working Hours (b) ..	44.05	46.11	43.69	46.55	45.30	46.33	45.09
	Hourly Wage (b) ..	2/0½	1/10	2/1	1/9	2/0	1/9½	1/11½
31st Dec., 1937	Weekly Wage (a) ..	92/1	88/1	92/8	85/10	90/10	87/0	90/2
	Working Hours (b) ..	44.07	46.22	43.05	46.57	45.25	46.24	45.03
	Hourly Wage (b) ..	2/2½	1/11½	2/2½	1/10½	2/0½	1/11	2/0½
FEMALE WORKERS.								
31st Dec., 1933	Weekly Wage ..	43/2	42/9	46/9	41/0	48/4	43/2	43/5
	Working Hours ..	43.93	45.44	44.03	46.03	45.57	46.07	44.81
	Hourly Wage ..	0/11½	0/11½	1/0½	0/10½	1/0½	0/11½	0/11½
31st Dec., 1934	Weekly Wage ..	44/3	43/9	47/8	41/11	49/1	44/1	44/5
	Working Hours ..	43.93	45.44	44.03	46.03	45.57	46.07	44.81
	Hourly Wage ..	1/0	0/11½	1/1	0/11	1/1	0/11	1/0
31st Dec., 1935	Weekly Wage ..	44/11	44/2	48/0	42/5	49/1	44/10	45/0
	Working Hours ..	43.93	45.44	44.03	46.03	45.57	46.07	44.81
	Hourly Wage ..	1/0½	0/11½	1/1	0/11	1/1	0/11½	1/0
31st Dec., 1936	Weekly Wage ..	45/7	46/10	48/4	43/4	50/11	45/2	46/5
	Working Hours ..	43.93	44.94	44.03	46.03	45.57	45.24	44.60
	Hourly Wage ..	1/0½	1/0½	1/1½	0/11½	1/1½	1/0	1/0½
31st Dec., 1937	Weekly Wage ..	50/2	49/2	51/4	46/10	51/6	48/6	49/8
	Working Hours ..	43.92	44.76	44.03	46.02	45.57	45.24	44.52
	Hourly Wage ..	1/1½	1/1½	1/2	1/0½	1/1½	1/0½	1/1½

(a) Weighted average weekly rate in all industrial groups combined. (b) Weighted average working hours per week, and computed hourly rates of wage for all industrial groups excepting Groups XI. (Shipping, etc.), and XII. (Agricultural, Pastoral, etc.). Working hours have not been generally regulated by industrial tribunals for occupations classified in industrial groups XI. and XII.

(iii) *Index-Numbers.* The tendency in a majority of the States during the years 1924 to 1928 was towards a slight reduction in hours of labour, particularly in Queensland and New South Wales, where a 44-hour week became operative on 1st July, 1925, and on 4th January, 1926, respectively. Further decreases were recorded in the hours of work per week for male employees during 1927 in all States excepting Queensland, where hours remained stationary. The decline in the other States was due mainly to the reduction of the standard hours of labour in Group II. (Engineering, etc.) from 48 to 44 hours per week, as awarded by the Commonwealth Court of Conciliation and Arbitration. The decline in the weekly hours in New South Wales, Victoria, South Australia and Tasmania in 1928 was due mainly to the reduction of the standard hours of labour in Group V. (Books, Printing, etc.). During 1929 the hours of work per week for timber workers in certain States were increased by the Commonwealth Court, with the result that the weighted average hours for Australia were slightly increased. The repeal of the Acts in New South Wales and Queensland providing for a 44-hour week tended to increase the average number of hours of labour per week in those States during the year 1930, while the restoration of this measure in New South Wales during 1931 and in Queensland during 1933 was mainly responsible for the reduction in hours since 1930. A further slight reduction in Queensland was brought about by the introduction in April, 1935, of a 40-hour week for employees on Building Construction. The effect of these changes on the hourly rate of wage as compared with the general increase in the weekly wage is readily seen from the comparative index-numbers given in the following table:—

WEEKLY AND HOURLY INDEX-NUMBERS OF WAGE RATES.—ADULT WORKERS.

(Base : Weighted Average for Australia, 30th April, 1914* = 1,000.)

Date.	Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aus- tralia.
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MALE WORKERS.

31st Dec., 1933	{ Weekly Wage	..	1,486	1,396	1,598	1,332	1,476	1,415	1,460
	{ Hourly Wage (a)	..	1,655	1,438	1,775	1,372	1,571	1,463	1,567
31st Dec., 1934	{ Weekly Wage	..	1,509	1,427	1,610	1,369	1,525	1,443	1,487
	{ Hourly Wage (a)	..	1,676	1,484	1,782	1,410	1,624	1,494	1,594
31st Dec., 1935	{ Weekly Wage	..	1,528	1,448	1,605	1,415	1,528	1,470	1,504
	{ Hourly Wage (a)	..	1,703	1,496	1,782	1,476	1,626	1,519	1,617
31st Dec., 1936	{ Weekly Wage	..	1,552	1,508	1,609	1,444	1,606	1,512	1,541
	{ Hourly Wage (a)	..	1,731	1,567	1,787	1,500	1,724	1,552	1,662
31st Dec., 1937	{ Weekly Wage	..	1,672	1,599	1,682	1,558	1,649	1,580	1,637
	{ Hourly Wage (a)	..	1,878	1,676	1,875	1,602	1,751	1,643	1,774

FEMALE WORKERS. *

31st Dec., 1933	{ Weekly Wage	..	1,589	1,573	1,720	1,510	1,778	1,587	1,599
	{ Hourly Wage	..	1,779	1,700	1,919	1,611	1,916	1,691	1,752
31st Dec., 1934	{ Weekly Wage	..	1,628	1,609	1,755	1,541	1,809	1,623	1,636
	{ Hourly Wage	..	1,819	1,738	1,956	1,699	1,947	1,730	1,797
31st Dec., 1935	{ Weekly Wage	..	1,654	1,626	1,767	1,561	1,808	1,650	1,655
	{ Hourly Wage	..	1,848	1,758	1,971	1,721	1,947	1,759	1,818
31st Dec., 1936	{ Weekly Wage	..	1,677	1,722	1,780	1,594	1,873	1,661	1,708
	{ Hourly Wage	..	1,875	1,883	1,985	1,700	2,018	1,803	1,881
31st Dec., 1937	{ Weekly Wage	..	1,848	1,810	1,889	1,724	1,894	1,785	1,828
	{ Hourly Wage	..	2,066	1,985	2,107	1,830	2,041	1,938	2,017

(a) See footnote to following table.

* Approximate Weekly Rates—M = 55/1; F = 27/2. Hourly Rates—M = 1/2; F = 0/61.

4. **Weighted Average Nominal Weekly Hours of Labour, Adult Males.**—The following table shows the weighted average nominal hours of labour (exclusive of overtime) in a full working week for make workers in each State and Australia at the 31st December, 1933 to 1937.

HOURS OF LABOUR.

INDEX-NUMBERS OF WEEKLY HOURS OF LABOUR OF ADULT MALES.

NOTE.—Index-numbers based on the average hours of labour for Australia at the 30th April, 1914 (48.93) as base (= 1,000). Overtime is excluded.

Date.	Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aus- tralia.
31st Dec., 1933	Weighted average weekly hours of labour (a) ..	44.23	46.82	44.00	46.83	45.51	46.77	45.36
	Index-numbers ..	904	957	899	957	930	956	927
31st Dec., 1934	Weighted average weekly hours of labour (a) ..	44.23	46.82	44.00	46.83	45.51	46.77	45.36
	Index-numbers ..	904	957	899	957	930	956	927
31st Dec., 1935	Weighted average weekly hours of labour (a) ..	44.18	46.74	43.69	46.63	45.48	46.75	45.26
	Index-numbers ..	903	955	893	953	929	955	925
31st Dec., 1936	Weighted average weekly hours of labour (a) ..	44.08	46.41	43.69	46.55	45.30	46.33	45.00
	Index-numbers ..	901	948	893	951	926	947	922
31st Dec., 1937	Weighted average weekly hours of labour (a) ..	44.07	46.22	43.68	46.57	45.25	46.24	45.03
	Index-numbers ..	901	945	893	952	925	945	920

(a) Weighted average working hours per week for all industrial groups excepting Groups XI (Shipping), and XII. (Agricultural, Pastoral, etc.). Working hours have not been generally regulated by industrial tribunals for occupations classified in Industrial Groups XI. and XII.

5. **Nominal and Effective Wages.**—(i) *General.* Wages are said to be *nominal* when they represent the actual amounts of money received in return for labour, and are described as *effective* or *real* when expressed in terms of their equivalent purchasing power, that is, their purchasing power over some definite composite unit or regimen the cost of which can be ascertained at different times. The relation between nominal and effective or real wages was discussed at some length in Labour Report No. 6, and was also referred to in Labour Report No. 11.

Since it is possible to measure purchasing power over more than one composite unit or regimen it is equally possible to convert any given nominal wage series into more than one series of effective or real wages. It has been the practice of the Bureau in the past to compute effective wage index-numbers by dividing the nominal wage index-numbers by the corresponding retail price index-numbers for food, groceries and rent of all houses ("A" series). While wage-rates were generally varied on the basis of the "A" series index-numbers there was a good deal to be said for this procedure. Now that the Commonwealth Court has abandoned the "A" series, the merit of the "C" series of retail price index-numbers for "deflating" nominal wage rates is strengthened. The "C" series covers food, groceries, rent of four and five roomed houses, clothing, and miscellaneous household requirements. In the following tables, therefore, real wages are measured in terms of their purchasing power over both the "A" series regimen and the "C" series regimen. For some purposes the one is appropriate and for some purposes the other.

(ii) *Nominal Weekly Wage Index-numbers 1901 to 1937—States.* The following table shows the course of nominal weekly rates of wage for all industries in each State, the weighted average rate for Australia in 1911 being taken as the base (= 1,000). These results are based generally upon rates of wage prevailing in the capital city of each State, but in certain industries, such as mining, rates are necessarily taken for places other than the capital cities. For the year 1914 and subsequent years the index-numbers in the following table are based on the average wage for the four quarters of each year:—

NOMINAL WAGE INDEX-NUMBERS, ADULT MALES.

(Base : Weighted Average Wage for Australia, 1911 = 1,000.)

State.	Number of Occupations included.		1901.	1911.	1914.	1921.	1929.	1933.	1934.	1935.	1936.	1937.
	1901 to 1912.	1913 to 1935.										
New South Wales	158	874	858	1,003	1,093	1,862	2,012	1,638	1,617	1,631	1,654	1,723
Victoria ..	150	909	796	985	1,062	1,803	1,964	1,502	1,523	1,550	1,583	1,665
Queensland ..	87	627	901	997	1,035	1,879	1,976	1,720	1,727	1,731	1,728	1,774
South Australia ..	134	567	819	1,013	1,061	1,697	1,891	1,423	1,458	1,493	1,533	1,608
Western Australia	69	489	1,052	1,152	1,223	1,832	1,960	1,584	1,619	1,641	1,688	1,748
Tasmania ..	54	482	719	799	1,027	1,745	1,840	1,519	1,540	1,571	1,610	1,656
Australia (a) ..	652	3,948	848	1,000	1,081	1,827	1,972	1,584	1,590	1,609	1,635	1,703

(a) Weighted average.

(iii) *Effective or Real Wage Index-numbers in each State, 1901-1937.* In the following tables the index-numbers for the years prior to 1914 are computed from nominal wage index-numbers based on rates current at the end of December, annual averages not being available. For 1914 and following years, however, they are computed from nominal wage index-numbers based on the average of rates current at the end of the four quarters of each year. So far as the years 1901 and 1911 are concerned, however, the index-numbers may be taken as substantially accurate, since the movement in wages during the course of any one year prior to 1914 was comparatively slight.

In obtaining the index-numbers for each State the nominal wage index-numbers for each State have been divided by the corresponding retail price index-numbers for the capital city and multiplied by 1,000.

EFFECTIVE OR REAL WAGE INDEX-NUMBERS FOR ADULT MALES (FULL WORK).

Measured in terms of purchasing power over the "A" series regimen.

(Base : Weighted Average Real Wage in Australia in 1911 = 1,000.)

State.	1901.	1911.	1914.	1920.	1929.	1931.	1932.	1933.	1934.	1935.	1936.	1937.
New South Wales	..	961	973	906	911	1,050	1,160	1,150	1,138	1,101	1,095	1,090
Victoria ..	..	915	1,037	961	875	1,084	1,162	1,126	1,139	1,114	1,092	1,075
Queensland ..	..	1,172	1,090	1,038	1,039	1,220	1,345	1,376	1,417	1,377	1,323	1,261
South Australia ..	..	948	957	929	853	1,067	1,178	1,133	1,152	1,144	1,149	1,143
Western Australia	..	1,024	1,023	1,070	1,012	1,143	1,232	1,212	1,246	1,221	1,221	1,221
Tasmania ..	..	827	833	942	830	1,064	1,104	1,067	1,094	1,080	1,099	1,094
Australia (a) ..	..	964	1,000	948	911	1,082	1,185	1,168	1,178	1,148	1,133	1,119

(a) Weighted average.

Since the "C" series index-numbers were not compiled for periods prior to November, 1914, it has been assumed for the purpose of the following table that fluctuations between 1911, the base of the table, and 1914 in the "C" series would have been similar to the fluctuations observed in the "A" series.

EFFECTIVE OR REAL WAGE INDEX-NUMBERS FOR ADULT MALES (FULL WORK).

Measured in terms of purchasing power over the "C" series regimen.

(Base : Weighted Average Real Wage in Australia in 1911 = 1,000.)

State.	1901.	1911.	1914.	1920	1929.	1931.	1932.	1933.	1934.	1935.	1936.	1937.
New South Wales	..	..	..	925	850	1,130	1,210	1,206	1,186	1,157	1,153	1,150
Victoria ..	..	..	..	954	806	1,164	1,200	1,159	1,147	1,146	1,134	1,131
Queensland ..	..	..	..	1,022	957	1,290	1,336	1,306	1,382	1,366	1,338	1,296
South Australia ..	..	..	..	914	776	1,099	1,137	1,079	1,086	1,091	1,097	1,101
Western Australia	..	..	..	1,043	888	1,152	1,189	1,158	1,177	1,177	1,187	1,191
Tasmania ..	..	..	..	902	753	1,108	1,120	1,094	1,110	1,109	1,115	1,128
Australia (a) ..	..	..	1,000	948	841	1,151	1,210	1,190	1,187	1,173	1,166	1,160

(a) Weighted average.

In the table above, the effective wage index-numbers are computed to the one base, that of Australia for 1911. As the index-numbers are comparable in all respects, comparisons may be made as to the increase or decrease in the effective wage index-number for any State over any period of years.

(iv) *Effective or Real Wage Index-numbers in the Commonwealth, 1901-37.* In the following table similar index-numbers are given for Australia as a whole. These are obtained by dividing the nominal wage index-numbers for Australia by the corresponding retail price index-numbers for the Six Capital Cities and multiplying by 1,000.

NOMINAL AND EFFECTIVE OR REAL WAGE INDEX-NUMBERS (FULL WORK).

(Base : Weighted Average Real Wage in Australia in 1911 = 1,000.)

Year.				Nominal Weekly Wage Index- Numbers.	Retail Price Index-numbers.		Effective or Real Wage Index-numbers, i.e., Relative Purchasing Power over Regimen of—	
					" A " Series (Food, Groceries and Rent of All Houses).	" C " Series (All Items).	" A " Series.	" C " Series.
1901	..	..	..	848	880	..	964	..
1910	..	..	..	955	970	..	985	..
1911	..	..	..	1,000	1,000	(1,000)	1,000	(1,000)
1912	..	..	..	1,051	1,101	..	955	..
1913	..	..	..	1,076	1,104	..	975	..
1914	..	..	..	1,081	1,140	1,140	948	948
1915	..	..	..	1,092	1,278	1,297	854	842
1916	..	..	..	1,144	1,324	1,319	864	867
1917	..	..	..	1,226	1,318	1,406	930	872
1918	..	..	..	1,270	1,362	1,501	932	846
1919	..	..	..	1,370	1,510	1,695	907	808
1920	..	..	..	1,627	1,785	1,935	911	841
1921	..	..	..	1,826	1,697	1,680	1,076	1,087
1922	..	..	..	1,801	1,600	1,619	1,126	1,112
1923	..	..	..	1,805	1,700	1,664	1,062	1,085
1924	..	..	..	1,840	1,681	1,637	1,095	1,124
1925	..	..	..	1,861	1,722	1,654	1,081	1,125
1926	..	..	..	1,914	1,786	1,677	1,072	1,141
1927	..	..	..	1,946	1,766	1,662	1,102	1,171
1928	..	..	..	1,963	1,760	1,675	1,115	1,172
1929	..	..	..	1,972	1,822	1,713	1,082	1,151
1930	..	..	..	1,939	1,683	1,618	1,152	1,198
1931	..	..	..	1,752	1,479	1,448	1,185	1,210
1932	..	..	..	1,639	1,403	1,377	1,168	1,190
1933	..	..	..	1,584	1,345	1,335	1,178	1,187
1934	..	..	..	1,590	1,385	1,355	1,148	1,173
1935	..	..	..	1,609	1,420	1,380	1,133	1,166
1936	..	..	..	1,635	1,461	1,409	1,119	1,160
1937	..	..	..	1,704	1,507	1,448	1,131	1,177

NOTE.—For years prior to 1914, the nominal wage index-numbers relate to the end of the year only, but from 1914 onward these figures, in addition to those for retail prices, are averages for the whole year.

§ 3. The Basic Wage in Australia.

1. *General.*—The “basic wage” in Australia is understood to mean the lowest wage which can be paid to an unskilled labourer on the basis of “the normal needs of an average employee regarded as a human being living in a civilized community.”* This wage is fixed by various industrial tribunals in Australia operating under Commonwealth and State Arbitration Acts, and is varied from time to time according to changes in cost of living, constitution of the family unit, etc. In addition to the “basic” wage, these tribunals also determine what is known as the “secondary” wage—“the extra payment to be made for trained skill or other exceptional qualities necessary for an employee exercising the functions required.”† The term “minimum” wage, on the other hand, is used to express the lowest rate payable in a particular industry, and is either equal to, or greater than the “basic” wage.

2. *The Commonwealth Basic Wage.*—(i) *General.* The doctrine of a basic wage was propounded as far back as 1890 by Sir Samuel Griffith, Premier of Queensland, and the same principle was enunciated in the New South Wales Arbitration Court in somewhat similar terms by Mr. Justice Heydon in 1905. In spite, however, of these pronouncements and the fact that wage-fixing tribunals had been in operation as early as 1896 (in the State of Victoria), it was not until the year 1907 that the first basic wage, as such, was declared by a Court in Australia. This declaration was made by Mr. Justice Higgins, President of the Commonwealth Court of Conciliation and Arbitration, and is popularly known as the “Harvester Judgment” on account of its having been determined in connexion with H. V. McKay’s Sunshine Harvester Works. The rate of wage declared in this case was 7s. per day or £2 2s. per week for Melbourne, the amount considered reasonable for “a family of about five,” and was generally referred to as the “Harvester” wage. The constituent parts of this amount were £1 5s. 5d. for food, 7s. for rent, and 9s. 7d. for all other expenditure.

The “Harvester” basic rates for all other towns throughout Australia were fixed at practically the same rates until the year 1913, when the Court took cognizance of the Retail Price index-numbers, covering food and groceries and rent of all houses (“A” Series), for the 30 more important towns of Australia, which had been published by the Commonwealth Statistician for the first time in the preceding year. These index-numbers had been taken back to 1901, with the year 1911 as base, and disclosed not only considerable percentage increases since 1907, but also large disparities in the relative purchasing power of money in the various towns. The basic rates for towns were thereafter fixed on their respective index-numbers, taking the index-number 875 for Melbourne for the year 1907 as being equivalent to 42s. per week, or the base of the table 1,000 as being equivalent to 48s. per week. Exceptions were made in the case of many country towns, where certain “loadings” were applied to counterbalance their lower index-numbers due to cheaper rentals.‡

In 1922 an amount known as the “Powers’ 3s.”§ was added as a general “loading” to the weekly wage for the purpose of securing to the worker during a period of rising prices the full equivalent of the “Harvester” standard. In the same year the system was instituted of making regular quarterly adjustments of the basic wage to accord with variations in purchasing power as disclosed by the “A” Series retail price index-numbers.

The Commonwealth Conciliation and Arbitration Act provides that the “basic” wage, or any alteration thereof including the principles on which it is computed, together with any variation or interpretation of any award involving any such alteration, shall be considered by a Court constituted by the Chief Judge and not less than two other Judges, and must be approved by a majority of the members of that Court. By a

* Mr. Justice Higgins—*A new Province of Law and Order.*

† *Ibid.*

‡ As these indexes covered only about 60 per cent. of household expenditure, a low index due to low rentals would wrongly presume low costs in the remaining uninvestigated 40 per cent. of household expenditure and *vice versa*.

§ Awarded by Mr. Justice Powers in the Gas Workers’ case.

judgment of the High Court on the 21st April, 1933, the "basic" wage is taken to mean for the foregoing purpose, not only the "Harvester" wage but any "loadings" forming part of the primary wage of an unskilled labourer. A "loading" is defined as an addition to the "basic" wage as compensation for some peculiar condition of labour or environment, and not by way of "margin for skill." The wage payable for skilled labour is assessed on the basis of the "basic" wage, including "loadings."

The adequacy or otherwise of the "Harvester" standard has been the subject of much discussion, the author of the judgment himself urging on several occasions the need for its review. The abnormal conditions during and for some time after the war hindered such a review which was regarded as less urgent by reason of the fact that wages throughout Australia were being automatically adjusted to changes in retail prices. A Royal Commission (referred to later) was appointed in 1920 to assess a basic wage, but its recommendations were not carried out.

No change was made in the method of fixation and adjustment of the basic wage until the onset of the depression, which began to be felt severely during 1930. Applications were then made to the Court by employers for some greater measure of reduction of wages than that afforded by the automatic adjustments to falling retail prices. An account of the proceedings which resulted in the Court reducing all wages under its jurisdiction by 10 per cent. from the 1st February, 1931, is given in Labour Report No. 23, page 74. Reference is also made to the Court's refusal in June, 1932, and May, 1933, to remove this special reduction.

(ii) *Basic Wage Inquiry, 1934.* The "Harvester" standard, adjusted to retail price variations, continued as the theoretical basis of the wage of the Commonwealth Court until 31st May, 1934, when it was superseded by a judgment delivered on 17th April, 1934, full particulars of which appear in preceding issues of the Year Book. The basic wage declared on this occasion (known as the "Restoration Basic Wage, 1934") was as follows for the six capital cities:—

			<i>s. d.</i>				<i>s. d.</i>
Sydney	..	..	67 0	Adelaide	..	..	64 0
Melbourne	..	..	64 0	Perth	..	..	66 0
Brisbane	..	..	61 0	Hobart	..	..	67 0

Six Capital Cities, 65s. od.

The 10 per cent. special reduction in wages referred to above ceased to operate upon the introduction of the new rates, and the basis of the periodical adjustments to retail price variations was transferred from the "A" Series to the "C" Series of Index-Numbers. The latter Series covers Food and Groceries; Rent of 4-roomed and 5-roomed Houses; Clothing; Fuel; Light; Household Utensils; Household Drapery; Fares; and other Miscellaneous household requirements. The base of the table (1,000) was taken by the Court as equal to 81s. per week. This gave the above rates for the capital cities, which are proportionate to their respective index-numbers. In effect, the new rate for the Six Capital Cities was the same as that previously paid under the "A" Series, without the "Powers" 3s., and without the 10 per cent. reduction. Certain towns gained and others lost in comparison with rates under the "A" Series, owing to the different relationship of towns under the "A" and the "C" Series.

(iii) *Basic Wage Inquiry, 1937.* In May, 1937, the Commonwealth Court heard an application by the combined Unions for an increase in the basic wage. The Unions asked that the equivalent of the base (1,000) of the "C" Series Index be increased from 81s. to 93s. which on current index-numbers would have represented an average increase of about 10s. per week. The hearing extended from 10th May, to 4th June, 1937, and the Court delivered judgment on 23rd June. The chief features of the judgment were—

(a) Various amounts were added to the basic wage not as an integral, and therefore adjustable, part of that wage, but as "loadings" on the rates that would have been payable under the "shilling table" as determined by the 1934 judgment. The latter was referred to in the judgment as the "needs" portion of the total resultant basic wage. The "loadings" and resultant "total basic wages" for the six capital cities were as follows:—

City.				"Needs" Basic Wage.	"Loading."	Total Basic Wage.
				s. d.	s. d.	s. d.
Sydney ..	..	..	..	72 0	6 0	78 0
Melbourne ..	..	..	..	69 0	6 0	75 0
Brisbane ..	..	..	..	68 0	6 0	74 0
Adelaide ..	..	..	..	68 0 (a)	4 0	72 0
Perth ..	..	..	..	70 0 (a)	4 0	74 0
Hobart ..	..	..	..	70 0 (b)	4 0	74 0
Six Capitals				70 0	5 0	75 0

(a) An additional 1s. was actually being paid under the "2s. minimum adjustment" provision.

(b) Represents 1s. gain on rate actually being paid.

The above were not to apply to railway employees, to whom the Court granted "loadings" of 5s. in New South Wales and Victoria, and 3s. in South Australia and Tasmania. Workers in the provincial towns were to receive "loadings" 6s. in New South Wales, Victoria and Queensland; and 4s. in South Australia, Western Australia and Tasmania. The Maritime workers were granted a "loading" of 21s. 6d. per month, and the Pastoral workers received increases proportionate to the increase of the flat basic rate, from 68s. to 77s. in respect of the basis of piece work rates. Station hands received an increase of 3s. per week.

The "loadings" were to come into operation by instalments as follows:—

"Loading."	Instalments.	Date of Operation. (First pay period to begin in—)
s. d.	s. d.	
6 0	3 0	July, 1937
	3 0	October, "
5 0	3 0	July, "
	2 0	October, "
4 0	2 0	July, "
	2 0	October, "
3 0	2 0	July, "
	1 0	October, "

The Maritime, Pastoral and Gas Workers' increases were to become fully operative in the first pay period in July.

(b) The former proviso that no adjustment of wages should take place unless the amount of variation reached at least 2s. was rescinded in favour of minimum variations of 1s. per week.

(c) The general policy laid down in the previous judgment in regard to rates for country towns was retained, with the exception that the rates for Geelong and Warrnambool were made the same as those for Melbourne.

(d) The basis of the adjustment of wages in accordance with the variations shown by retail price index-numbers was transferred from the "C" Series to a special "Court" Series based upon the "C" Series.

(e) Female and Junior rates were left for adjustment by individual Judges when dealing with specific awards.

The main parts of the Judgment were reprinted in the previous issue of the Official Year Book.

(iv) *Current Federal Basic Wage Rates.* The basic wage rates of the Federal Court operative from 1st December, 1938, are as follows, including the "loadings" referred to above :—

	s. d.		s. d.
New South Wales—		South Australia—	
Sydney ..	81 0	Adelaide ..	76 0
Newcastle ..	81 0	Five Towns ..	76 0
Broken Hill ..	82 0		
Five Towns ..	81 0	Western Australia—	
		Perth ..	76 0
Victoria—		Kalgoorlie ..	90 0
Melbourne ..	79 0	Geraldton ..	82 0
Geelong ..		Five Towns ..	77 0
Warrnambool ..			
Mildura ..		Tasmania—	
Yallourn ..	85 6	Hobart ..	76 0
Five Towns ..	79 0	Launceston ..	75 0
		Queenstown (a) ..	66 6
Queensland—		Five Towns ..	75 0
Brisbane ..	75 0	Thirty Towns ..	78 0
Five Towns ..	76 0	Six Capital Cities ..	78 0

(a) Fixed wage.

With the exception of those mentioned above, the rate for provincial towns is 3s. less than that of their respective capital cities.

3. *State Basic Wages.*—(i) *New South Wales.* The first determination under the New South Wales Industrial Arbitration Act of a standard living wage for adult male employees was made on the 16th February, 1914, by the Court of Industrial Arbitration. The Board of Trade was established in 1918 with power to determine the living wage for adult male and female employees in the State; the Board made numerous declarations from 1918 to 1925, but ceased to function after the Industrial Arbitration (Amendment) Act 1926 established the Industrial Commission of New South Wales, which exercised the powers of the Board of Trade from the 15th April, 1926.

The adult male rate was determined on the family unit of a man, wife and two children from 1914 to 1925; a man and wife only in 1927, with family allowances for dependent children; and a man, wife, and one child in 1929, with family allowances for other dependent children.

Employees in rural industries are not covered by the rates shown in the following table; a living wage for rural workers of £3 6s. per week was in force for twelve months from October, 1921, and a rate of £4 4s. operated from June, 1927 to December, 1929, when the power of industrial tribunals to fix a living wage for rural workers was withdrawn.

The variations in the living wages determined by the industrial tribunals of New South Wales up to 27th April, 1937, are shown in the following table. Thereafter changes are made automatically in accordance with the procedure outlined in the next paragraph, and the latest current rate payable will be found in the table in par. vi of this section.

BASIC WAGE VARIATIONS IN NEW SOUTH WALES.

Male.		Female.	
Date of Declaration.	Basic Wage per Week.	Date of Declaration.	Basic Wage per Week.
	£ s. d.		£ s. d.
16th February, 1914 ..	2 8 0	..	..
17th December, 1915 ..	2 12 6	..	..
18th August, 1916 ..	2 15 6	..	..
5th September, 1918 ..	3 0 0	17th December, 1918 ..	1 10 0
8th October, 1919 ..	3 17 0	23rd December, 1919 ..	1 19 0
8th October, 1920 ..	4 5 0	23rd December, 1920 ..	2 3 0
8th October, 1921 ..	4 2 0	22nd December, 1921 ..	2 1 0
12th May, 1922 ..	3 18 0	9th October, 1922 ..	1 19 6
10th April, 1923 ..	3 19 0	(a) ..	2 0 0
7th September, 1923 ..	4 2 0	.. ..	2 1 6
24th August, 1925 ..	4 4 0	.. ..	2 2 6
27th June, 1927 ..	4 5 0	.. ..	2 6 0
20th December, 1929 ..	4 2 6	.. ..	2 4 6
26th August, 1932 ..	3 10 0	.. ..	1 18 0
11th April, 1933 ..	3 8 6	.. ..	1 17 0
20th October, 1933 ..	3 6 6	.. ..	1 16 0
26th April, 1934 ..	3 7 6	.. ..	1 16 6
18th April, 1935 ..	3 8 6	.. ..	1 17 0
24th April, 1936 ..	3 9 0	.. ..	(b) 1 17 6
27th October, 1936 ..	3 10 0	.. ..	1 18 0
27th April, 1937 ..	3 11 6	.. ..	1 18 6

(a) Dates of declaration from 1923 on same as those for male rate.

(b) Rate declared, £1 15s. 6d., but law amended to provide a rate for females at 54 per cent. of that for males.

Following on the judgment of the Commonwealth Arbitration Court referred to on page 570, the Government of New South Wales decided to bring the State Basic Wage into line with the Federal rates ruling in the State, and secured an amendment of the Industrial Arbitration Act to give effect thereto. The Act (No. 9 of 1937) was passed on 7th October, 1937, and was expressed to come into operation from the commencement of the first pay period in October, practically from 1st October, 1937. The general principles laid down by the Commonwealth Court were followed as closely as practicable, and provision was made for the automatic adjustment of wages in conformity with variations of retail prices as shown by the Commonwealth Court's "All Items" Retail Price Index Numbers, shortly known as the "Court" Series of Index Numbers. The Commonwealth Court's principle of treating the "prosperity loadings" as a separate and non-adjustable part of the total basic wage was adopted. The provisions of the main Acts for the periodic declaration of the living wage by the Industrial Commission were repealed, but the amending Act placed on the Commission the responsibility of altering all awards and agreements in conformity with the intentions of the new Act; to define boundaries within which the various rates are to operate; and to specify the appropriate "Court" Series retail price index-numbers to which they are to be related.

Compared with State adult basic wages of £3 11s. 6d. per week for males, and £1 18s. 6d. for females operative at the time, the alteration represented for males increases of 6s. 6d. in Sydney; 3s. 6d. in Country districts (with certain exceptions); and 4s. 6d. for railway and other Crown employees as defined by the Act. For females the increases were 54 per cent. of the foregoing, and amounted to 3s. 6d., 3s., and 2s. 6d., respectively.

The latest rates applicable in the metropolitan area from 1st December, 1938, are £4 1s. for males and £2 3s. 6d. for females.

The principle of supplementing wages by a payment in respect of dependent children under fourteen years of age is operative in New South Wales, and a brief account of the main features of the system appears in § 4, par. 2 hereafter.

(ii) *Victoria and Tasmania.* A State basic rate of wage is not declared in Victoria and Tasmania. In these States the Wages Board system of wage fixation is in operation, and each Board determines the minimum rate of wage to be paid in the industry or calling under review. In the majority of cases the practice of the Commonwealth Arbitration Court of adjusting wages in accordance with variations in retail prices has been followed in the past by these bodies. In the case of Victoria, by amendments of the Factories and Shops Act No. 4275 of 1934 and No. 4461 of 1936, it is now obligatory on all Wages Boards to adopt such provisions of Commonwealth Awards which such Boards are under the Factory and Shops Acts empowered to include in their determinations. The Secretary of Labour is also empowered under this Act to make adjustments of wages according to variations in retail price index-numbers without calling the Board together.

(iii) *Queensland.* The first formal declaration by the Industrial Arbitration Court in this State of a basic wage was gazetted on 24th February, 1921. Prior to this declaration the rate of £3 17s. per week for adult males had been generally recognized by the Court in its Awards as the basic or living wage. The basic wage is nominally intended to provide for the needs of a man, his wife and three children. The variations in the adult basic wages determined by the Industrial Arbitration Court are shown below :—

BASIC WAGE VARIATIONS IN QUEENSLAND.

Date of Operation.					Adult Basic Wage.	
					Male.	Female.
					£ s. d.	£ s. d.
1st March, 1921..	..	..	..	..	4 5 0	2 3 0
1st March, 1922..	..	..	..	..	4 0 0	2 1 0
28th September, 1925 (a) ..	..	..	..	..	4 5 0	2 3 0
1st August, 1930 ..	..	..	..	..	4 0 0	2 1 0
1st December, 1930 ..	..	..	..	..	3 17 0	1 19 6
1st July, 1931 ..	..	..	..	..	3 14 0	1 19 0
1st April, 1937 ..	..	..	..	..	3 18 0	2 1 0
1st April, 1938 ..	..	..	..	..	4 1 0	2 3 0

(a) Fixed by Basic Wage Act.

The rates shown above are applicable throughout the South-Eastern Division of the State: allowances are added for the following divisions—Northern, 10s.; North-Western, 17s. 4d.; Mackay, 5s. 6d.; and South-Western, 7s. 4d. Half of these allowances are granted to females.

(iv) *South Australia.* The Industrial Code 1920 provides that the Board of Industry shall after public inquiry declare the living wages to be paid to adult male and female employees. Prior to the passing of this Act the living wage was declared by the Industrial Court, the first award, 7s. per day, being made by Mr. Justice Gordon in the Brushmakers' Case in December, 1908.

The first declaration by the Board of Industry was made on 15th July, 1921, when the living wage for adult male employees in the metropolitan area was determined at £3 19s. 6d. per week.

The family unit is not specifically defined in the Code, but it is stated that the South Australian Industrial Court in 1920 definitely decided that the average employee in respect of whom the living wage is to be declared is a man with a wife and three children.

The variations in the living wages determined by the Board of Industry are shown below :—

BASIC WAGE VARIATIONS IN SOUTH AUSTRALIA.

Male.		Female.	
Date of Declaration.	Basic Wage per Week.	Date of Declaration.	Basic Wage per Week.
	£ s. d.		£ s. d.
15th July, 1921 ..	3 19 6	11th August, 1921 ..	1 15 0
11th April, 1922 ..	3 17 6	..	..
19th October, 1923 ..	3 18 6	..	..
30th April, 1924 ..	4 2 0	22nd October, 1924 ..	1 18 0
29th July, 1925 ..	4 5 6	17th August, 1925 ..	1 19 6
11th October, 1930 ..	3 15 0	22nd December, 1930 ..	1 15 0
17th August, 1931 ..	3 3 0	4th December, 1931 ..	1 11 6
18th October, 1935 ..	3 6 0	24th December, 1935 ..	1 13 0
18th December, 1936 ..	3 9 6	9th April, 1937 ..	1 14 9
25th November, 1937 ..	3 14 0	25th November, 1937 ..	1 16 6

(v) *Western Australia.* The Industrial Arbitration Act 1912-1934 provides that the Court of Arbitration shall determine and declare a basic wage to operate from 1st July of each year and, wherever and whenever necessary, differential basic rates in special or defined areas of the State. In an amending Act of 1930 provision is made for quarterly adjustments when the Government Statistician reports a variation in the cost of living of 1s. or more per week compared with the previous quarter.

The first declaration of the basic wage by the Court of Arbitration since the authority to fix one was vested in the Court in 1925 was made on 11th June, 1926. The family unit is not specifically defined in the Act, but it has been the practice of the Court to take as a basis for its calculations a man, his wife and two dependent children. The variations in the annual declarations of the Court of Arbitration are shown in the following table :—

BASIC WAGE VARIATIONS IN WESTERN AUSTRALIA.

Date of Operation.	Metropolitan Area.		South-West Land Division.		Other Parts of State.	
	Male.	Female.	Male.	Female.	Male.	Female.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1st July, 1926 ..	4 5 0	2 5 11	..	..	4 5 0	2 5 11
1st July, 1929 ..	4 7 0	2 7 0	..	..	4 7 0	2 7 0
1st July, 1930 ..	4 6 0	2 6 5	..	..	4 5 0	2 5 11
1st July, 1931 ..	3 18 0	2 2 2	..	..	3 17 0	2 1 8
1st July, 1932 ..	3 12 0	1 18 11	3 13 6	1 19 8	3 18 0	2 2 2
1st July, 1933 ..	3 8 0	1 16 9	3 9 6	1 17 6	3 17 6	2 1 10
1st July, 1934 ..	3 9 6	1 17 6	3 10 0	1 17 10	3 19 6	2 2 11
1st July, 1935 ..	3 10 6	1 18 1	3 11 2	1 18 5	4 4 4	2 5 6
1st July, 1936 ..	3 10 6	1 18 1	3 11 9	1 18 9	4 6 0	2 6 5
1st July, 1937 ..	3 13 9	1 19 10	3 14 8	2 0 4	4 7 0	2 7 0
26th July, 1937(b) ..	3 14 11	2 0 5	3 15 10	2 0 11	4 7 0	2 7 0
1st July, 1938 ..	4 0 0	2 3 2	4 1 0	2 3 9	4 13 3	2 10 4
30th July, 1938(b) ..	4 1 1	2 3 9	4 1 0	2 3 9	4 15 2	2 11 5

(a) Excluding Gold-fields areas, where rates were the same as those operating from 1st July, 1926.

(b) Quarterly adjustment.

(vi) *Current State Basic Wage Rates.* In the following table are given the current basic wage rates declared by the various State tribunals:—

BASIC WEEKLY WAGE RATES FIXED BY STATE INDUSTRIAL TRIBUNALS.

State.	Basic Wage.		Date of Operation.	Family Unit (for Male Rate).
	Males.	Females.		
	£ s. d.	£ s. d.		
New South Wales ..	(a) 4 1 0	2 3 6	1.12.38	Man, wife and child
Victoria ..	(b)	(b)	(b)	(b)
Queensland ..	4 1 0	2 3 0	1.4.38	Man, wife and three children
South Australia ..	(c) 3 14 0	(d) 1 16 6	25.11.37	Man, " " "
Western Australia..	(e) 4 1 1	2 3 9	30.7.38	Man, wife and two children
Tasmania ..	(b)	(b)	(b)	(b)

(a) Plus child allowances. (b) None declared, but follow Federal rates to a large extent. (c) Operative from 7th January, 1937. (d) Operative from 23rd April, 1937. (e) Metropolitan Area. Basic wage for Gold-fields Areas and portions of State exclusive of the S.W. Land Division—males £4 15s. 2d.; females £2 11s. 5d.; Agricultural Areas and S.W. Land Division—males £4 2s. 2d.; females £2 4s. 4d.

4. **Royal Commission on the Basic Wage, 1920.**—The Federal basic wage referred to in par. 2 (1) *ante* was made operative in other parts of Australia on the basis of the relative retail price index-numbers applicable to the locality, but only one comprehensive attempt has been made by the Federal authorities to ascertain specifically what the actual requirements were in the various States according to reasonable standards of comfort, including all matters comprised in the ordinary expenditure of a household in respect of a family consisting of a man, wife and three children under fourteen years of age.

The attempt referred to was made by a Royal Commission, and its report, issued in 1920, recommended the following amounts for the various capital cities:—

	£ s. d.
Sydney	5 17 1
Melbourne	5 16 6
Brisbane	5 6 2
Adelaide	5 16 1
Perth	5 13 11
Hobart	5 16 11
Six Capitals (Weighted Average)	5 15 8

The recommendations of this Commission were not carried out owing largely to the marked advance of the amounts suggested over ruling rates* and the grave doubts expressed as to the ability of industry to pay such rates.

§ 4. Child Endowment in Australia.

1. **General.**—The principal of supplementing wages by a payment in respect of dependent children under fourteen years of age has become very prominent in Australia in recent years, and is actually in operation in certain instances. The system has been in force in various forms in England and on the Continent as far back as 1795, the first instance occurring in England in that year.†

2. **New South Wales.**—The first attempt in Australia to institute the system was made in New South Wales in 1919, when a Bill was introduced into the State Parliament to provide a flat basic wage for a man and wife, and an allowance of 5s. per week for each child, the latter rate to be reduced on a sliding scale and to cease automatically when the income reached an amount of £3 per week above the basic wage. The Bill was rejected, but the subject again came up in the Session of 1926–27, when Acts,‡ which

* The "Harvester" equivalent for Melbourne at the time (September quarter, 1920) was £4 13s. per week, but only £3 18s. to £4 2s. was being paid on the basis of an annual index-number.

† A complete survey of the systems in force in various countries is contained in Eleanor Rathbone's *Disinherited Family: A plea for the Endowment of the Family*.

‡ Family Endowment Act 1927; Finance (Family Endowment Tax) Act 1927; Industrial Arbitration (Living Wage Declaration) Act 1927 and subsequent amendments.

have been amended during subsequent years, provided for the payment of child allowances. These measures provided for (a) the declaration of a basic wage for a man and wife,* and (b) the payment of an allowance of 5s. per week in respect of each dependent child, subject to the provision that child allowances would be paid only to the extent to which the total earnings of the worker and his family fall short of the sum represented by the *basic wage* plus child allowance at the rate of 5s. per week for each child under the age of fourteen years. Thus, a worker with three dependent children receiving £5 by way of wages would not be entitled to the allowance, but would receive it in respect of a fourth child. These payments in New South Wales commenced to operate from 23rd July, 1927. The basic wage was determined for a family unit of a man, wife and one child on 20th December, 1929, and an amending Act, assented to on the 23rd December, 1929, excluded one child in each family from endowment. The fund from which child endowment payments were originally made was created by a levy on the wages bill of employers. The rate of tax from employers during the year 1930 was fixed at 1 per cent. From 1st July, 1931, the rate was fixed at 2 per cent., and from 1st January, 1932, at the rate of 5d. in the £1 on all wages above £3 per week. The levy was discontinued as from 1st January, 1934, the cost of endowment being met from the Special Income and Wages Tax, which is also used for other social services.

3. **Commonwealth Public Service.**—The first system of child endowment in Australia was instituted within the Commonwealth Public Service. It came into operation on 1st November, 1920, when, following on the recommendations of the Royal Commission on the Basic Wage,† child endowment at the rate of 5s. per week for each dependent child under fourteen years of age was paid to officers, with a limitation of salary plus allowance of £400 per annum. As the result of proceedings before the Public Service Arbitrator in 1923, these allowances were confirmed as a permanent part of the salary scheme, and the necessary fund to meet them was created by deducting the average value of the payment from the basic wage of all adult officers. In effect, therefore, the officers are themselves providing the fund from which the allowance is paid. The deduction was originally £11 per annum, but is now £12. The payment is now limited to officers receiving up to £500 per annum inclusive of the allowance. Details regarding the introduction and method of calculating the payments under this scheme have been published in previous issues of the Official Year Book and will be found also in the Labour Reports issued by this Bureau.

4. **National Scheme.**—The Commonwealth Government, in June, 1927, called a conference at Melbourne of the Premiers of the several States to consider the question from a national standpoint. The Prime Minister submitted various estimates of cost of endowing dependent children under fourteen years of age in Australia at 5s. per week. After discussion, it was decided to refer the matter to a Royal Commission, to be appointed by the Commonwealth Government.

The Commission was not unanimous in its findings, and the opinions and recommendations of the members were embodied in two separate reports, which dealt exhaustively with the constitutional aspects, existing systems, industrial legislation, the basic wage, standard of living, regulation of wages, working conditions and cognate matters.

At the conference of Commonwealth and State Ministers held at Canberra during May, 1929, the Prime Minister stated that the Commonwealth Government was not prepared to adopt a scheme financed entirely from the proceeds of taxation, as had been recommended in the minority report. The Commonwealth Government agreed with the majority of the Commission that child endowment could not be separated from the control of the basic wage—a power which the Commonwealth did not possess and which

* This was subsequently declared at £4 5s. per week for adult males and £2 6s. per week for adult females. A separate rate for rural employees was declared later at £4 4s. per week.

† The Chairman of the Commission (Mr. A. B. Piddington, K.C.), in a supplementary report had suggested that the wage recommended (£5 16s.) be split up into a flat basic wage of £4 and a child Endowment of 12s. per week for each dependent child, the fund for the payment of this allowance to be created by a tax on employers of 10s. 9d. per employee per week.

the States were not prepared to relinquish. The Government, therefore, did not propose to establish any system of child endowment. It was generally agreed that any scheme which would increase the charges upon industry would be unwise at that particular time. The matter of child endowment was accordingly left to be dealt with as the State Governments should think proper.

The findings and recommendations in the *majority* and *minority* reports are given in Labour Report, No. 19.

§ 5. Changes in Rates of Wage.

The collection of detailed information relating to changes in rates of wage was discontinued at the end of the year 1929, owing to the difficulty of securing reliable data. Officials of employers' organizations and trade unions reported that they were unable to supply definite particulars as to the number of workpeople affected by Commonwealth and State awards and determinations. In order to secure comprehensive and reliable data it would have been necessary to extend considerably the field of collection, and after serious consideration, and in view of the fact that the demand for the figures had been limited, it was decided that the additional expense and work involved were too heavy to justify the continuance of the tabulation.

D.—EMPLOYMENT.

§ 1. Industrial Disputes.

1. **General.**—Information with regard to the collection of particulars and the methods of tabulation of industrial disputes involving stoppage of work has appeared in previous issues of the Official Year Book, and is also given in the annual Labour Reports of this Bureau.

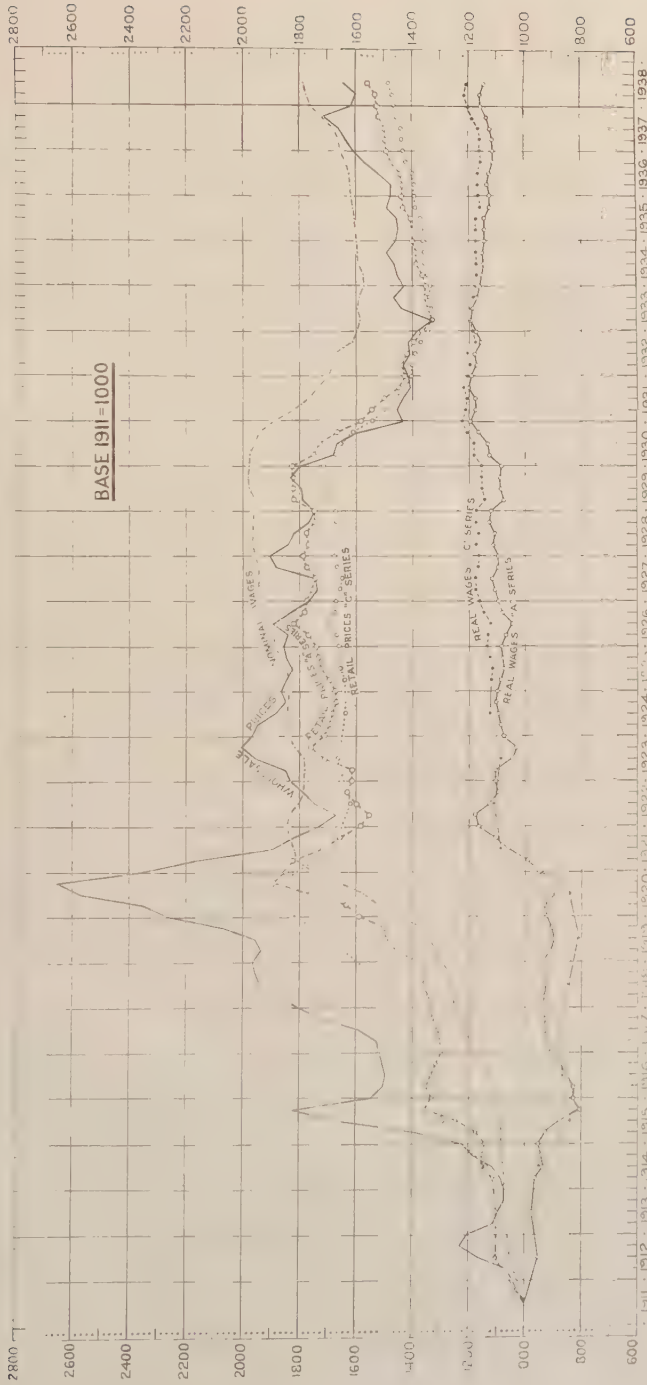
In *annual* tabulations particulars are included of all disputes which either *commenced* or were *current* during the year under review. As regards "number of disputes", "establishments involved", and "workpeople involved", therefore, duplication will take place in respect of those disputes which started in and were unsettled at the end of a preceding year; the number involved will, however, be indicated in a footnote, to permit of due allowance being made in any calculations made from the tables.

2. **Industrial Disputes Involving Stoppage of Work. Classified in Industrial Groups, 1937.**—The following tables give particulars of industrial disputes which either commenced or were current during the year 1937, classified according to industrial groups. Similar information for the previous years was published in preceding issues of the Official Year Book and Labour Report:—

INDUSTRIAL DISPUTES CLASSIFIED ACCORDING TO INDUSTRIAL GROUPS, 1937.

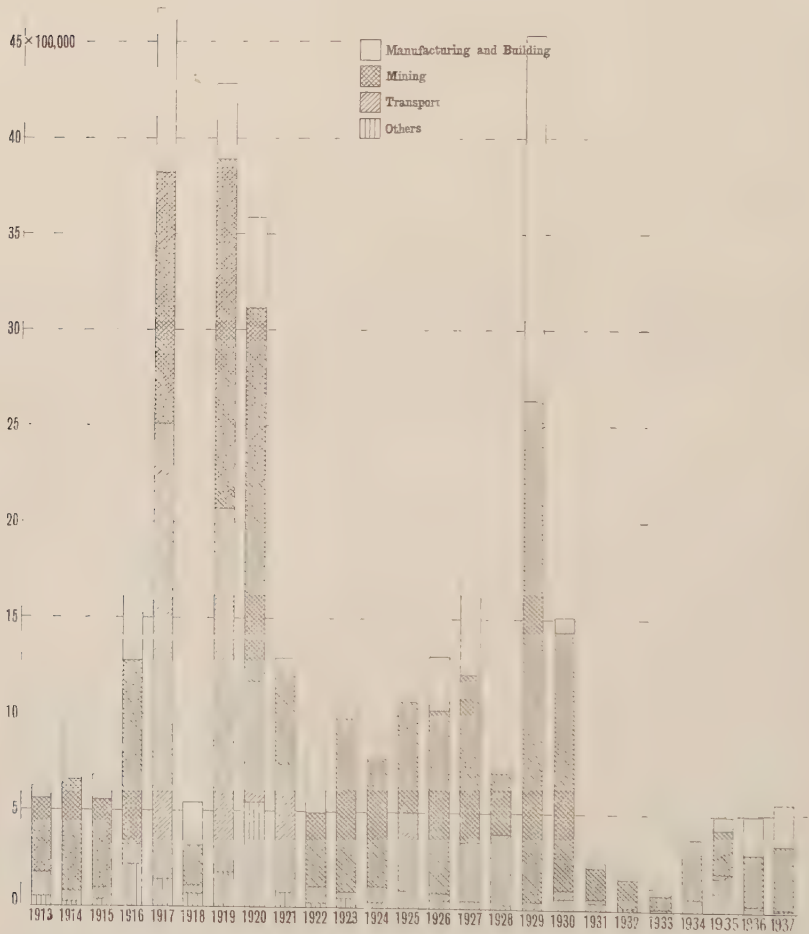
Class.	Industrial Group.	Num- ber.	Estab- lish- ments In- volved.	Workpeople Involved.			Working Days Lost.	Esti- mated Loss in Wages.
				Directly.	In- directly.	Total.		
	NEW SOUTH WALES.							
I.	Wood, saw-mills, etc. ..	1	1	15	..	15	30	30
II.	Engineering, metal workers, etc. ..	22	103	8,210	1,743	9,953	166,025	128,738
III.	Food, drink, etc. ..	8	8	1,272	..	1,047	4,830	4,222
IV.	Clothing, textiles, etc. ..	4	4	600	375	600	2,890	2,064
V.	Other manufacturing ..	5	5	1,406	..	1,406	3,700	2,148
VII.	Building ..	1	1	15	..	15	90	101
VIII.	(a) Coal-mining ..	237	251	67,873	1,292	69,165	230,575	243,975
	(b) Other mining, quarries, etc. ..	7	7	2,991	..	2,991	16,687	16,055
XI.	Shipping, wharf labour, etc. ..	2	2	240	..	240	2,040	1,800
XIV.	Miscellaneous ..	9	9	1,611	105	1,716	6,838	4,025
	Total ..	296	391	84,323	3,515	87,838	434,617	403,158

WHOLESALE AND RETAIL PRICES, NOMINAL AND EFFECTIVE OR REAL WAGE INDEX-NUMBERS.—AUSTRALIA, 1911 TO 1938.



EXPLANATION.—The solid lines in the above graph are for the Six Capital Cities as a whole, with the exception of those for Wholesale Prices which are for Melbourne. They are all calculated to the common base 1911 = 1,000, the scale for which appears on the left of the graph. They are shown *quarterly* from the year 1912 in the case of the "A" Series Retail Prices (food, groceries and rent of all houses) and Wholesale Prices (Melbourne). The "C" Series Retail Prices (food, groceries, rent of 4 and 5 rooms, clothing and miscellaneous household expenditure) are shown *quarterly* from the year 1925. Nominal Wages are shown *quarterly* from 1914, and Real Wages *quarterly* from 1911 for the "A" Series, and from 1925 for the "C" Series.

Industrial Disputes-Working Days Lost
in
Various Industrial Groups



EXPLANATION.—The scale refers to working days lost in hundred thousands. Thus, taking the year 1917, and comparing the shaded and blank sections with the scale, it will be observed that about 870,000 working days were lost in Manufacturing and Building, over 1,300,000 in Mining, over 2,300,000 in Transport, and about 150,000 in other industries.

INDUSTRIAL DISPUTES CLASSIFIED ACCORDING TO INDUSTRIAL GROUPS, 1937—continued.

Class.	Industrial Group.	Num-ber.	Estab-lish-ments In-volved.	Workpeople Involved.			Working Days Lost.	Esti-mated Loss in Wages.
				Directly.	In-directly.	Total.		
VICTORIA.								
I.	Wood, saw-mills, etc.	1	1	30	..	30	2,490	1,678
IV.	Clothing, textiles, etc.	1	1	53	..	53	159	80
VI.	Other manufacturing	1	1	774	28	802	11,228	7,742
VII.	Building	1	1	5	10	15	90	110
VIII.	(a) Coal-mining	5	5	2,605	6	2,611	53,272	46,672
XIV.	Miscellaneous	2	2	303	..	303	3,514	900
	Total	11	11	3,770	44	3,814	70,753	57,182
QUEENSLAND.								
II.	Engineering, metal workers, etc.	4	4	90	134	224	3,373	2,896
III.	Food, drink, etc.	1	2	165	35	200	5,000	5,000
VIII.	(a) Coal-mining	3	3	327	10	337	6,836	7,441
X.	Other land transport	1	1	200	..	200	200	150
XI.	Shipping, wharf labour, etc.	1	1	10	24	34	272	212
	Total	10	11	792	203	995	15,681	15,699
SOUTH AUSTRALIA.								
I.	Wood, saw-mills, etc.	1	10	100	..	100	2,600	1,350
II.	Engineering, metal workers, etc.	1	1	30	..	30	60	70
III.	Food, drink, etc.	1	1	687	..	687	687	600
VI.	Other manufacturing	1	1	380	..	380	380	300
VIII.	(b) Other mining, etc.	1	1	30	..	30	60	60
XIV.	Miscellaneous	1	1	30	52	82	164	84
	Total	6	15	1,257	52	1,309	3,951	2,464
WESTERN AUSTRALIA.								
I.	Wood, saw-mills, etc.	1	1	220	..	220	5,720	4,040
II.	Engineering, metal workers, etc.	2	2	101	..	101	900	634
III.	Food, drink, etc.	2	28	310	5	315	1,085	1,185
V.	Books, printing, etc.	1	2	35	15	50	1,000	841
VI.	Other manufacturing	1	7	250	200	450	1,800	2,000
VII.	(b) Other mining, quarries, etc.	3	3	448	..	448	3,545	3,550
XI.	Shipping, wharf labour, etc.	1	1	19	..	19	285	260
XIV.	Miscellaneous	1	1	62	..	62	62	60
	Total	12	45	1,445	220	1,665	14,397	12,570
TASMANIA.								
VIII.	(a) Coal-mining	4	7	374	5	379	17,016	14,964
NORTHERN TERRITORY.								
VIII.	(b) Other mining, quarries, etc.	1	1	61	13	74	444	468
XI.	Shipping, wharf labour, etc.	1	1	81	..	81	162	150
XIV.	Miscellaneous	1	1	18	..	18	90	90
	Total	3	3	160	13	173	696	708
AUSTRALIA.								
I.	Wood, saw-mills, etc.	4	13	365	..	365	10,840	7,008
II.	Engineering, metal workers, etc.	9	110	8,411	1,827	10,238	121,110	112,118
III.	Food, drink, etc.	12	39	2,434	415	2,849	11,608	11,007
IV.	Clothing, textiles, etc.	5	5	653	..	653	3,049	2,144
V.	Books, printing, etc.	1	2	35	15	50	1,000	841
VI.	Other manufacturing	8	14	2,900	228	3,128	17,114	12,190
VII.	Building	2	2	20	10	30	280	211
VIII.	(a) Coal-mining	249	266	71,174	1,313	72,487	1,027,600	813,050
	(b) Other mining, quarries, etc.	12	12	3,530	13	3,543	20,736	20,133
X.	Other land transport	1	1	200	..	200	200	150
XI.	Shipping, wharf labour, etc.	5	5	350	24	374	2,780	2,422
XIV.	Miscellaneous	14	14	2,024	157	2,181	10,668	5,159
	Total	342	483	92,121	4,052	96,173	557,111	506,745

3. **Industrial Disputes, Australia, 1933 to 1937.**—The following table gives particulars of the number of industrial disputes, the number of workpeople involved, and the losses in working days and wages caused by disputes which either commenced or were current during each of the years 1933 to 1937, classified according to industrial groups.

Satisfactory comparisons of the frequency of industrial disputes in classified industries can be made only after omitting those which are recorded for coal-mining (Group VIII.). For the year 1913 the proportion of disputes in the mining industry represented practically 50 per cent. of the total number recorded. In subsequent years the proportion remained high, ranging from 45 per cent. in 1917 and 1918 to as much as 81 per cent. in 1921 and 1924. During the last two years disputes in the coal-mining industry represented 73 per cent. of the total. In the past five years working days lost through dislocations involving work people engaged in coal-mining amounted to 933,336, representing 46 per cent. of the total loss of working days during the period :—

INDUSTRIAL DISPUTES.—AUSTRALIA.

Year.	Manu- facturing. (Groups I. to VI.)	Building. (Group VII.)	Mining (Group VIII.)		Transport, Land and Sea. (Groups IX. to XI.)	Miscel- laneous. (Groups XII. to XIV.)	ALL GROUPS.
			Coal Mining.	Other Mining, etc.			
NUMBER.							
1933	16	..	52	6	1	15	90
1934	13	1	91	9	6	35	155
1935	21	4	108	9	21	20	183
1936	30	3	171	13	3	15	235
1937	59	2	249	12	6	14	342
1933-37	139	10	671	49	37	99	1,005

WORKPEOPLE INVOLVED.

1933	5,361	..	17,461	5,415	50	1,826	30,113
1934	7,284	54	23,622	7,862	3,169	8,867	50,858
1935	4,086	49	31,519	2,795	6,142	2,731	47,322
1936	5,480	581	45,600	7,022	375	1,529	60,587
1937	17,353	30	72,492	3,543	574	2,181	96,173
1933-37	39,564	714	190,694	26,637	10,310	17,134	285,053

WORKING DAYS LOST.

1933	31,625	..	48,528	26,985	100	4,713	111,956
1934	73,878	108	190,363	41,800	14,002	50,235	370,386
1935	62,423	1,294	162,633	64,824	100,774	103,176	495,124
1936	199,641	2,337	224,113	37,582	8,087	25,488	497,248
1937	214,869	180	307,699	20,736	2,959	10,668	557,111
1933-37	582,436	3,919	933,336	191,927	125,922	194,285	2,031,825

ESTIMATED LOSS IN WAGES.

1933	£ 23,407	£ ..	£ 44,927	£ 23,683	£ 00	£ 2,941	£ 95,048
1934	49,304	80	180,027	37,806	10,164	34,328	317,859
1935	47,070	1,113	161,048	57,701	61,249	58,086	390,596
1936	100,259	1,846	249,767	36,408	5,480	15,065	468,825
1937	165,618	211	313,052	20,133	2,572	5,159	506,745
1933-37	445,727	3,280	958,421	175,911	79,555	116,179	1,779,073

4. **Summary of Disputes (involving Stoppage of Work), 1933 to 1937.**—The following table gives particulars of the number of industrial disputes in each State in the years 1933 to 1937 together with the workpeople involved, the working days lost, and the estimated loss in wages :—

INDUSTRIAL DISPUTES.—SUMMARY.

State or Territory.	Year.	Number.	Establishments Involved.	Workpeople Involved.			Working Days Lost.	Estimated Loss in Wages.
				Directly.	Indirectly.	Total.		
New South Wales	1933	54	143	13,406	1,663	15,069	53,104	48,760
	1934	117	129	33,065	2,943	36,008	213,753	196,265
	1935	134	162	31,350	2,055	33,405	301,345	237,707
	1936	188	231	50,557	1,728	52,285	432,513	414,375
	1937	296	391	84,323	3,515	87,838	434,617	403,158
Victoria	1933	12	28	7,156	294	7,450	26,693	20,416
	1934	19	84	8,074	354	8,428	108,872	82,438
	1935	20	30	7,658	243	7,901	45,713	31,280
	1936	10	22	1,599	224	1,823	12,251	9,899
	1937	11	11	3,770	44	3,814	70,753	57,182
Queensland	1933	11	11	2,636	884	3,520	13,876	10,077
	1934	7	830	2,453	420	2,873	29,718	24,200
	1935	13	29	1,791	301	1,995	73,451	57,960
	1936	12	12	1,052	194	1,246	14,653	12,325
	1937	10	11	792	203	995	15,681	15,699
South Australia	1933	1	1	50	..	50	100	90
	1934	1	1	44	..	44	11	17
	1935	3	5	340	..	340	2,463	1,557
	1936	1	1	101	..	101	505	400
	1937	6	15	1,257	52	1,309	3,951	2,464
Western Australia	1933	10	10	3,644	276	3,920	16,896	14,530
	1934	10	16	3,309	176	3,485	17,792	14,699
	1935	11	29	3,597	6	3,603	71,076	61,901
	1936	19	49	3,408	1,309	4,717	32,408	27,714
	1937	12	45	1,445	220	1,665	14,397	12,570
Tasmania	1933	1	1	75	..	75	1,200	1,050
	1934	..	..	..	..	..	..	..
	1935	1	1	70	4	74	148	91
	1936	4	4	369	6	375	3,718	3,212
	1937	4	7	374	5	379	17,016	14,064
Northern Territory	1933	1	1	21	8	29	87	125
	1934	1	1	18	2	20	240	240
	1935	1	1	4	..	4	128	100
	1936	1	1	32	8	40	1,200	900
	1937	3	3	160	13	173	696	708
Aust. Cap. Territory	1933	..	..	..	..	..	..	..
	1934	..	..	..	..	..	..	..
	1935	..	..	..	..	..	..	..
	1936	..	..	..	..	..	..	..
	1937	..	..	..	..	..	..	..
Australia	1933	90	195	26,988	3,125	30,113	111,956	95,048
	1934	155	1,061	46,963	3,805	50,858	370,586	317,859
	1935	183	257	44,813	2,509	47,322	495,124	390,506
	1936	235	320	57,118	3,469	60,587	497,248	468,825
	1937	342	483	92,121	4,052	96,173	557,111	506,745

Detailed information in regard to the disputes during the years 1933 to 1937 and previous years is given in the Labour Reports issued by this Bureau.

5. **Particulars of Principal Disputes in 1937.**—(i) *General.* The preceding tables show the number and effect of all disputes for the year 1937 classified according to Industrial Groups. Increases occurred in several of the principal groups during 1937 in respect of workpeople involved, and the number of working days and amount of wages lost. Of the total number of disputes no less than 73 per cent. were in connexion with the coal-mining industry, mostly in New South Wales. Wages lost in this industry in New South Wales were estimated at £243,975, or 48 per cent. of the total estimated loss of wages in Australia, viz., £506,745. Compared with earlier years there was no dispute of outstanding magnitude but particulars in the following paragraphs are given of the largest which occurred in the States mentioned.

(ii) *Interstate*.—(a) *General*.—Disputes which extend beyond the limits of a single State, while in some cases extensive, are comparatively few in number. These disputes rarely start on an interstate basis, but develop into such through the interdependence of trade union organizations. During the year 1937 no dispute of an interstate character occurred.

New South Wales.—Alleged irritation tactics by the unions concerned in a demand for an increase in wages of 3s. per week resulted in a lock-out by metal trades employers in Sydney in March, 1937. Fifty-five establishments and about 2,000 employees were involved in this dispute which lasted for more than six weeks. Negotiations between the Metal Trades Employers' Association and Union officials brought the dispute to a conclusion satisfactory to the employees concerned.

A claim by two miners for "deficient place" was the cause of a stoppage involving 150 workpeople at Scarborough in April, 1937. Direct negotiations having failed to effect a settlement of the dispute, a Compulsory Conference was called by the Conciliation Commissioner, and as a result the parties concerned agreed to abide by the decision of an arbitrator mutually agreed upon. The arbitrator granted the claim made by the miners and work was resumed after a stoppage of nearly three months.

Engineers at Morts Dock, Sydney, were involved in a dispute in September, 1937, caused by the refusal of the employees to accept an interpretation of the Commonwealth Arbitration Court of a clause in its award. Negotiations between representatives of the parties to the dispute finally resulted in the employees' demands being granted. Work was resumed by the 167 workpeople involved after a stoppage of more than six months.

Approximately 900 coalminers were involved in a dispute at the John Darling and Burwood Collieries, Belmont in September, 1937. The cause of the stoppage was reported to be the objection by the employees to the company choosing men to operate coal loading machines without regard to seniority. After a stoppage of nearly three months direct negotiations between the parties resulted in a resumption of work on conditions similar to those operating before the dispute.

Victoria.—The question of safety was the principal cause of a dispute involving coalminers at the State Coal Mine, Wonthaggi, in March, 1937. Approximately 800 workpeople were affected and operations at the colliery were suspended for a period of about two months. Several conferences between the parties were held but no satisfactory settlement of the matters in dispute could be arrived at. Finally, at a conference convened by the Acting Premier on 7th May, the representatives of all parties concerned unanimously accepted proposals which formed a basis for settlement of the dispute. These proposals were:—

- (1) Pending enactment by the Victorian Parliament of legislation amending the Coal Mines Regulation Act the provisions of the New South Wales Act with regard to—
 - (a) the introduction of safety lamps;
 - (b) conditions relating to their use; and
 - (c) provisions relating to shot-firing shall apply to the State Coal Mine.
- (2) The Railways Commissioners and Mine Manager undertake to act according to the instructions of the Inspector of Mines in the matter of "grunching" pending any appeal by them to a Court to be created when required, similar to the Court of Coal Mines Regulation under the New South Wales Act.
- (3) This arrangement is not to prejudice the right of the Miners' Federation to submit, at the proper time, suggested amendments to the Coal Mines Regulation Act 1928.

Tasmania.—A demand by contract miners for a guaranteed minimum wage owing to hard coal was given as the cause of a stoppage at Cornwall Colliery in February, 1937. Several conferences of the parties concerned were held but the proposals for settlement were rejected by the miners. However, in June, the miners decided to accept an agreement by which the company granted practically all the conditions asked at the beginning of the dispute, and the 98 workpeople involved resumed work after a stoppage of nearly five months.

6. Duration of Industrial Disputes, 1937.—The following table gives particulars of industrial disputes during 1937 according to certain adopted limits of duration :—

INDUSTRIAL DISPUTES.—DURATION, AUSTRALIA, 1937.

Limits of Duration.	Number.	Workpeople Involved.			Working Days Lost.	Estimated Loss in Wages.
		Directly.	Indirectly.	Total.		
1 day and less	140	41,050	966	42,016	42,016	44,649
2 days and more than 1 day ..	72	17,695	307	18,002	36,004	36,749
3 days and more than 2 days ..	20	5,776	55	5,831	17,493	19,444
Over 3 days and less than 1 week (6 days)	37	11,041	1,177	12,218	56,114	53,330
1 week and less than 2 weeks ..	40	7,312	947	8,259	62,352	60,061
2 weeks and less than 4 weeks ..	16	3,418	202	3,620	52,241	44,986
4 weeks and less than 8 weeks ..	9	3,546	218	3,764	129,688	95,807
8 weeks and over	8	2,283	180	2,463	161,203	151,719
Total	342	92,121	4,052	96,173	557,111	506,745

7. Causes of Industrial Disputes, 1913 to 1937.—The following table shows the principal causes of the industrial disputes which occurred in 1913 and from 1932 to 1937:—

INDUSTRIAL DISPUTES.—CAUSES, AUSTRALIA.

Causes of Dispute.	1913.	1932.	1933.	1934.	1935.	1936.	1937.
NUMBER.							
1. Wages—							
(a) For increase	42	5	1	10	9	16	28
(b) Against decrease	4	11	4	3	5	1	1
(c) Other wage questions ..	31	26	14	31	44	48	77
2. Hours of Labour—							
(a) For reduction	3	2				1	2
(b) Other disputes re hours ..	7		7	6	2	4	4
3. Trades Unionism—							
(a) Against employment of non-unionists	8	2	1	4	4	4	5
(b) Other union questions ..	5	3	3	8	12	16	24
4. Employment of particular Classes or Persons	44	50	35	52	53	81	80
5. Working Conditions	51	11	9	25	40	43	72
6. Sympathetic	5	2		3	1	5	11
7. Other Causes	8	15	16	13	13	16	38
Total	208	127	90	155	183	235	342

WORKPEOPLE INVOLVED.

1. Wages—							
(a) For increase	8,633	1,295	29	7,210	2,161	2,014	7,678
(b) Against decrease	563	7,327	2,178	2,817	339	40	15
(c) Other wage questions ..	7,160	5,417	4,336	8,335	11,804	12,930	21,588
2. Hours of Labour—							
(a) For reduction	460	198				20	429
(b) Other disputes re hours ..	1,819		2,620	309	1,601	488	1,474
3. Trades Unionism—							
(a) Against employment of non-unionists	5,370	17	89	383	581	1,612	3,512
(b) Other union questions ..	1,418	501	705	2,184	2,332	4,011	5,889
4. Employment of particular Classes or Persons	11,370	12,556	11,803	15,638	11,407	22,078	20,401
5. Working Conditions	10,785	2,804	4,503	6,062	11,298	10,085	17,854
6. Sympathetic	947	316		1,045	22	1,062	3,235
7. Other Causes	1,758	2,486	3,850	6,875	5,487	4,447	14,068
Total	50,283	32,917	30,113	50,858	47,322	60,587	96,173

INDUSTRIAL DISPUTES.—CAUSES, AUSTRALIA—*continued.*

Causes of Dispute.	1913.	1932.	1933.	1934.	1935.	1936.	1937.
WORKING DAYS LOST.							
1. Wages—							
(a) For increase	100,069	5,990	87	108,277	72,567	33,439	144,372
(b) Against decrease	9,438	123,571	17,431	35,459	1,021	120	30
(c) Other wage questions	78,183	17,631	18,736	40,219	73,020	32,068	107,904
2. Hours of Labour—							
(a) For reduction	2,774	2,894	..	..	..	340	1,897
(b) Other disputes re hours	15,111	..	8,895	1,748	48,878	9,577	4,442
3. Trades Unionism—							
(a) Against employment of non-unionists	91,002	59	89	3,263	2,615	7,509	20,750
(b) Other union questions	32,388	6,261	1,421	10,774	11,696	9,616	9,569
4. Employment of particular Classes or Persons	191,723	36,054	31,799	110,166	144,453	266,310	138,428
5. Working Conditions	73,562	14,902	22,865	26,223	64,612	119,475	85,746
6. Sympathetic	24,066	1,096	..	11,174	44	10,209	11,230
7. Other Causes	5,212	3,860	10,633	23,083	75,618	8,585	32,743
Total	623,528	212,318	111,956	370,386	495,124	497,248	557,111

The main causes of industrial disputes are "Wage" questions, "Working Conditions," and "Employment of Particular Classes or Persons." In each of the years 1913 to 1925 with the exception of 1922, the number of dislocations concerning wages exceeded those caused by any other question, and varied between a minimum proportion of 26 per cent. in 1922 and a maximum of 45 per cent. in 1916. Since 1929 the number of disputes concerning "Wages" has averaged approximately 30 per cent. of the total number for each year. The majority of the dislocations of work classified under the heading, "Employment of Particular Classes or Persons," are stoppages for the purpose of protesting against the dismissal of certain employees, who, in the opinion of their fellow-workers, have been unfairly treated or victimized. This class of dispute occurs very frequently in the coal-mining industry, and has been the principal cause of industrial disturbance in recent years. The number of disputes over "Trade Union" questions has represented a fairly uniform proportion of the total number of disputes during the years under review, while stoppages of work concerning "Hours of Labour" increased during 1926 and 1927, but have been relatively unimportant during recent years.

8. Results of Industrial Disputes.—The results of industrial disputes during each of the past six years are given in the following table:—

INDUSTRIAL DISPUTES CLASSIFIED ACCORDING TO RESULTS.—AUSTRALIA.

Year.	Number.				Workpeople Involved.				Working Days Lost.			
	In Favour of Workpeople.	In Favour of Employer.	Compromise.	Indefinite.	In Favour of Workpeople.	In Favour of Employer.	Compromise.	Indefinite.	In Favour of Workpeople.	In Favour of Employer.	Compromise.	Indefinite.
1932..	29	77	21	..	5,437	17,518	9,062	..	23,572	48,893	139,853	..
1933..	17	58	13	1	4,778	20,697	4,361	213	12,301	84,697	14,468	426
1934..	29	102	14	9	7,025	31,220	9,620	2,729	40,048	179,126	126,081	19,059
1935..	44	105	17	15	9,312	30,338	4,359	3,179	67,933	346,666	62,007	10,194
1936..	44	165	7	19	13,997	40,279	908	5,403	248,363	179,748	7,027	62,110
1937a	86	206	7	41	23,939	58,665	713	12,273	192,181	285,755	3,744	37,395

(a) See next paragraph.

The following particulars of disputes, which were incomplete at 31st December, 1937, should be added to the above figures to effect a balance with those published in the preceding tables:—

State.	Number.	Establishments Involved.	Workpeople.	Working Days Lost.
New South Wales	1	2	380	31,540
Tasmania	1	4	203	6,496
Total	2	6	583	38,036

9. **Methods of Settlement.**—The following table gives a classification of the methods of settlement according to the adopted schedule :—

INDUSTRIAL DISPUTES.—METHODS OF SETTLEMENT, AUSTRALIA.

Methods of Settlement.	1913.	1912.	1913.	1934.	1935.	1936.	1937.
NUMBER.							
Negotiations—							
Direct between employers and employees or their representatives	119	87	64	84	130	174	265
By intervention or assistance of distinctive third party—not under Commonwealth or State Industrial Act	17	4	1	2	3	16	9
Under State Industrial Acts—							
By intervention, assistance, or compulsory conference ..	19	5	3	10	7	3	6
By reference to Board or Court ..	22	2	3	9	6	6	4
Under Commonwealth Conciliation and Arbitration Act—							
By intervention, assistance, or compulsory conference ..	4	3	2	5	5	2	2
By filling places of workpeople on strike or locked out ..	13	2	2	2	8	4	5
By closing-down establishment permanently	1	1	3	2	4	..	1
By other methods	13	18	11	40	18	30	48
Total	208	127	89	154	181	235	(a) 340

WORKPEOPLE INVOLVED.

Negotiations—							
Direct between employers and employees or their representatives	23,357	22,595	10,703	25,469	30,360	44,251	72,430
By intervention or assistance of distinctive third party—not under Commonwealth or State Industrial Act	3,172	1,800	1,100	891	285	5,061	2,764
Under State Industrial Acts—							
By intervention, assistance, or compulsory conference ..	6,505	1,640	1,290	4,559	3,867	291	1,804
By reference to Board or Court ..	12,774	416	1,390	1,666	1,445	1,746	428
Under Commonwealth Conciliation and Arbitration Act—							
By intervention, assistance, or compulsory conference ..	659	1,839	1,096	4,335	2,017	339	480
By filling places of workpeople on strike or locked out ..	658	460	986	138	3,670	141	825
By closing-down establishment permanently	170	11	1,271	444	108	..	86
By other methods	2,988	4,156	3,213	13,092	5,436	8,758	16,773
Total	50,283	32,917	30,049	50,594	47,188	60,587	95,590

WORKING DAYS LOST.

Negotiations—							
Direct between employers and employees or their representatives	94,400	87,650	54,774	182,260	192,903	234,373	396,410
By intervention or assistance of distinctive third party—not under Commonwealth or State Industrial Act	26,335	79,872	6,600	20,019	3,211	202,949	18,517
Under State Industrial Acts—							
By intervention, assistance, or compulsory conference ..	187,871	7,423	3,510	58,801	117,762	3,047	48,769
By reference to Board or Court ..	221,769	3,408	6,330	10,474	16,961	24,503	7,354
Under Commonwealth Conciliation and Arbitration Act—							
By intervention, assistance, or compulsory conference ..	2,105	18,596	15,437	46,814	24,601	7,152	4,120
By filling places of workpeople on strike or locked out ..	14,139	6,874	10,543	138	71,973	2,581	12,571
By closing-down establishment permanently	20,400	44	8,627	4,486	7,546	..	172
By other methods	56,509	8,451	6,071	47,322	48,943	22,643	31,162
Total	623,528	212,318	111,892	364,314	486,800	497,248	519,075

(a) See previous paragraph.

The majority of disputes are settled by direct negotiations between employers and employees, the proportion so settled since 1913 ranging between 43 per cent. in 1925 and 75 per cent. in 1930. Of the 240 disputes settled during 1937, 265 or 78 per cent. were settled by this method. The proportion of dislocations settled by compulsory conferences or the intervention and assistance of officials under State or Commonwealth Arbitration Acts has varied considerably during the period under review, ranging from 3 per cent. in 1915 to 22 per cent. in 1913. The proportion in 1937 was 4 per cent. In connexion with the comparatively large number of disputes which are classified as having been settled "By other methods," many stoppages of work occur each year, principally at collieries, but the cause of such stoppages is not officially known to the employers or their representatives. Such stoppages usually last for one day, and work is resumed without negotiations for a settlement of the trouble.

§ 2. Fluctuations in Employment.

1. *General.*—The particulars given in the following tables are based upon information furnished by the secretaries of trade unions. The membership of the unions regularly reporting exceeds 440,000. Unemployment returns are not collected from unions the members of which are in permanent employment, such as railway and tramway employees, and public servants, or from unions whose members are casually employed (wharf labourers, etc.). Very few of the unions pay unemployment benefit, but the majority of the larger organizations have permanent secretaries and organizers who are closely in touch with the members and with the state of trade within their particular industries. In many cases unemployment registers are kept, and provision is made in the rules for payment of reduced subscriptions by members out of work. In view of these facts, and of the large membership of the unions from which quarterly returns are received, the percentages of unemployment derived from Trade Union returns may be regarded as of value by virtue of the indication they give of the relative intensity of unemployment from time to time, and it is believed that they can be taken as a rough index of the percentage of workers unemployed at any time. Seasonal fluctuations in unemployment have been provided for by collecting returns quarterly since the 1st January, 1913, the yearly figures quoted representing the average of the four quarters.

2. *Unemployment.*—(i) *States.* In addition to the qualifications referred to above, allowance must be made for the circumstance that the industries included in the returns from trade unions are not quite identical in the various States. The results may, however, be taken as representing fairly well labour conditions generally :—

UNEMPLOYMENT.—1937.

State.	Unions Reporting.		Unemployed.	
	Number.	Members.	Number.	Percentage.
New South Wales	109	191,280	20,892	10.9
Victoria	79	119,955	10,729	9.0
Queensland	45	63,701	4,643	7.3
South Australia	58	36,156	2,948	8.2
Western Australia	63	30,069	1,697	5.6
Tasmania	33	9,327	914	9.8
Australia	387	449,588	41,823	9.3

(ii) *Summary for Australia.* The following table gives a summary for Australia for the last five years and quarterly for the years, 1931 to 1937. Particulars of unemployment percentages in 1938 will be found in the Appendix :—

UNEMPLOYMENT.—AUSTRALIA.

Period.			Unions.	Membership.	Unemployed.	
					Number.	Percentage.
1933	Year	..	394	415,395	104,035	25.1
1934	"	..	394	424,035	86,865	20.5
1935	"	..	396	435,938	71,823	16.5
1936	"	..	392	441,311	53,992	12.2
1937	"	..	387	449,588	41,823	9.3
1934	March	Quarter	394	422,056	92,297	21.9
	June	"	394	422,113	88,413	20.9
	September	"	394	425,104	86,652	20.4
	December	"	396	426,866	80,097	18.8
1935	March	"	396	433,116	80,548	18.6
	June	"	397	433,254	77,177	17.8
	September	"	395	438,216	69,575	15.9
	December	"	395	439,165	59,992	13.7
1936	March	"	395	445,294	59,621	13.4
	June	"	394	446,564	57,001	12.8
	September	"	390	436,139	52,482	12.0
	December	"	390	437,246	46,863	10.7
1937	March	"	388	443,446	44,004	9.9
	June	"	387	447,714	43,584	9.7
	September	"	387	451,584	42,145	9.3
	December	"	387	455,608	37,558	8.2

NOTE.—Similar figures for each of the four quarters of the years since 1912 will be found in the Labour Reports. The quarterly figures show the number of persons who were out of work for three days or more during a specified week in each quarter, and the annual figures, the average of the four quarters; the returns do not include persons out of work through strikes or lock-outs.

The highest percentage of unemployed yet recorded (30.0) was reached in the quarter ended June, 1932.

(iii) *Percentages in States.* The following table gives the percentages in each State from 1933 to 1937:—

UNEMPLOYMENT.—PERCENTAGES.

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	%	%	%	%	%	%	%
1933 Year	28.9	22.3	15.3	29.9	24.8	19.1	25.1
1934 "	24.7	17.4	11.7	25.6	17.8	17.9	20.5
1935 "	20.6	14.0	8.7	17.6	13.4	15.9	16.5
1936 "	15.4	10.7	7.8	10.8	8.1	12.7	12.2
1937 "	10.9	9.0	7.3	8.2	5.6	9.8	9.3
1935 March	23.6	15.0	9.8	20.7	15.4	16.7	18.6
June	22.7	15.0	8.8	18.9	13.9	16.4	17.8
Sept.	19.1	14.8	8.5	16.3	12.5	16.7	15.9
Dec.	17.0	11.3	7.7	14.7	11.8	13.7	13.7
1936 March	17.2	10.8	8.5	12.2	10.3	11.1	13.4
June	16.2	10.6	8.5	11.0	9.2	12.7	12.8
Sept.	14.8	11.7	7.2	10.0	7.4	14.0	12.0
Dec.	13.3	9.7	7.2	9.9	5.6	12.9	10.7
1937 March	11.8	9.5	7.7	9.5	5.4	7.9	9.9
June	11.4	9.6	7.6	8.3	5.6	10.4	9.7
Sept.	10.5	9.5	7.2	8.4	6.6	10.6	9.3
Dec.	10.1	7.3	6.6	6.5	5.0	10.2	8.2

(iv) *Industrial Groups. Australia.* The next table shows the percentages unemployed in industrial groups. Industries or occupations in which employment is stable, such as railways, and those which are subject to exceptional fluctuations, such as wharf labour, agricultural, pastoral, etc., are not included. Other occupations—domestic, hotel employees, etc., are included in the "Other and Miscellaneous" group, as their returns are not sufficiently representative:—

UNEMPLOYMENT IN INDUSTRIAL GROUPS.—AUSTRALIA, 1937.

Industrial Group.	Number Reporting.		Unemployed.	
	Unions.	Members.	Number.	Percentage.
Manufacturing—				
I. Wood, Furniture, etc. ..	16	17,668	989	5.6
II. Engineering, Metal Works, etc. ..	62	78,658	4,685	6.0
III. Food, Drink, Tobacco, etc. ..	54	38,604	6,604	17.1
IV. Clothing, Hats, Boots, etc. ..	20	40,419	4,591	11.4
V. Books, Printing, etc. ..	12	19,936	873	4.4
VI. Other Manufacturing ..	63	47,435	4,092	8.6
VII. Building ..	46	53,444	5,467	10.2
VIII. Mining, Quarrying, etc. ..	20	25,339	3,863	15.2
X. Land Transport other than Railway and Tramway Services ..	11	17,672	2,086	11.8
IX., XI., XII., XIII., and XIV. Other and Miscellaneous ..	83	110,413	8,573	7.8
All Groups ..	387	449,588	41,823	9.3

3. *Seasonal Employment in Australia.*—An investigation concerning the extent of seasonal employment in Australia was made during 1929. The State Statisticians were requested to furnish brief reports regarding the industries and callings in their respective States subject to seasonal fluctuations. From the reports received from these officials, supplemented by information from other sources, particulars were compiled and published in Official Year Book, No. 22, and in Labour Report, No. 19.

4. *Direct Measures of Employment.*—(i) *General.* In order to supplement the Trade Union Unemployment percentages, the Commonwealth and the State Statisticians have for the last five years been making direct monthly collections of employment in factories and retail stores. In the case of factories, these figures give fairly reliable indexes of the course of employment fully a year before the results of the annual collections become available. In the case of retail stores, the figures yield an index of employment where none existed before. These indexes are also published in the *Monthly Review of Business Statistics* and quarterly in mimeographed statements.

(ii) *Index of Employment in Factories.* This index is available monthly from July, 1933. "Factories" include all industrial establishments in which four or more hands are employed, or in which power other than hand is used. The index relates to employees on the pay roll on the pay day nearest to the 15th of the month, and includes managers, overseers, clerks and all workers except working proprietors and, those engaged solely in the delivery and sale of goods.

Up to June, 1937, the index is based on the results of annual factory censuses, and actual mid-monthly factory employment of all persons is published in the Production Bulletin issued by the Bureau. For the year 1937-38 the index is based on returns from selected representative factories, and is issued subject to subsequent revision. Index-

numbers for later months, estimated in the same way, may be obtained from the *Monthly Review of Business Statistics* and quarterly press notices on employment issued by the Bureau. The number of these "sample" factories and their employees as a percentage of all factory employees in the year 1936-37 are shown at the foot of the table.

For the last three columns of the table the Australian index of employment has been divided by an index of employee population in order to compare the change in employment in factories with the change in the number of persons seeking employment generally. The indexes of employee population are based on the numbers of males and females aged 16 to 64 inclusive. These are found by applying vital and migration statistics to the numbers of males and females at varying ages at the Census date. The total index is obtained by taking a mean of the individual indexes weighted by the numbers of males and females in the employee group (wage and salary earners, unemployed, apprentices, and helpers) at the census of June, 1933. This gives males about three times the weight of females. Between 1928-29 and 1936-37 employee population as estimated in this way increased: males, 9.7 per cent.; females, 11.5 per cent.; total, 10.1 per cent. The increase of population of all ages over the same period was: males, 6.2 per cent.; females, 8.1 per cent.; total, 7.1 per cent. The difference is due to the fact that the average age of the Australian population is increasing.

The index of total factory employment, divided by the index of employee population, fluctuated between 100 and 105 from 1926-27 to 1928-29 (the base year); fell to 71 in 1931-32; and rose to 105 and 111 in 1936-37 and 1937-38 respectively. Thus the relative employment in factories was considerably higher in 1937-38 than it was in pre-depression years.

There have been changes in the distribution of factory employment. Thus female factory employment began to increase in 1931-32, a year sooner than male employment, and between 1928-29 and 1936-37 it had increased by 4 per cent. more than male employment, after allowing for the growth of employee population: the returns from the "sample" factories show that this difference was reduced during 1937-38. During the past few years total employment in Western Australia, Queensland and South Australia in that order fell below the average Australian level, while in Victoria it rose considerably above the average.

(iii) *Index of Employment in Retail Stores.* This index is not available even annually before July, 1933. It is based on employment in the number of establishments shown at the foot of the table. As there is no annual census of employment in retail stores, there is no means of knowing how accurately the movement of employment in these stores represents the whole field. Consequently this index is much less reliable than the index of employment in factories. The Australian index is an average of the State indexes weighted by the number of persons returned as engaged in "Commerce" in the June, 1933 census. This census industry class "Commerce" comprises both wholesale and retail dealing, and it is not possible to obtain separate figures for the latter. The numbers returned in the census as in the employee group in this class were, for Australia: males, 212,000; females, 87,000; total, 299,000. The respective percentages returned as totally unemployed in this group were: males, 18.1 per cent.; females, 10.6 per cent.; total, 15.9 per cent. In addition there was a good deal of part-time work.

The 22 per cent. increase in retail employment between July, 1933, and June, 1938, after correcting for growth of employee population, may be compared with the increase of 41 per cent. in the corresponding index of factory employment over the same period. However, unemployment in the census class "Manufacturing" was 22.1 per cent. compared with 15.9 per cent., quoted above, for "Commerce". In either case the increase in employment has been more than sufficient to absorb those returned as unemployed and working part-time at the census as well as the proportion of the normal growth of employee population ordinarily seeking employment in these classes.

(iv) *General Employment Indexes of New South Wales and Queensland.* The New South Wales Index is published by the Government Statistician of New South Wales, and fuller details may be found in the *New South Wales Year Book*. It refers to all wage and salary earners, and is based on the census record of employment at June, 1933, and receipts of wages tax and records of Government employment since that date.

The Queensland Index is published by the Queensland Bureau of Industry and fuller details may be found in the *Queensland Year Book*. It refers to adult male wage and salary earners and is based on the receipts of the unemployment insurance fund. Normal seasonal variation does not appear in the Index.

Both indexes give an almost complete record of employment, and are the most accurate indexes available in Australia. In both indexes, however, relief workers present a difficult problem. It is impossible to separate entirely "normal" loan works and relief works. Thus for the purposes of these indexes "relief workers" mean "part-time relief workers" in the case of New South Wales, and "intermittent relief workers" in the case of Queensland.

MONTHLY INDEX OF EMPLOYMENT IN FACTORIES.

(Base : Average for Year 1928-29 = 100.)

Period.	New South Wales.			Victoria.			Queensland.			South Australia.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Number of Employees (a) ..	129.5	44.6	174.1	98.1	51.2	149.3	35.6	7.8	43.4	29.0	6.4	35.4
1928-29 ..	100	100	100	100	100	100	100	100	100	100	100	100
1929-30 ..	90	91	98	96	98	96	95	94	94	87	89	87
1930-31 ..	68	75	70	78	83	80	83	85	84	63	71	64
1931-32 ..	66	79	69	77	90	81	78	84	80	61	76	64
1932-33 ..	73	86	76	87	101	92	80	92	82	68	84	71
1933-34 ..	82	94	85	96	107	100	86	99	88	77	89	80
1934-35 ..	93	107	97	105	113	108	92	105	94	89	97	91
1935-36 ..	104	116	107	117	119	117	97	110	99	104	110	105
1936-37 ..	112	125	115	123	121	123	103	116	106	110	113	111
1937-38 (b) ..	(c)	(c)	125	133	125	131	110	121	112	116	118	116
1937—												
January ..	111	118	113	121	113	118	91	109	94	109	108	109
February ..	114	126	117	125	125	125	90	115	99	114	118	115
March ..	115	130	119	127	126	127	99	118	102	115	119	116
April ..	114	129	118	120	126	128	101	114	104	119	120	120
May ..	115	128	119	127	122	125	105	116	107	120	117	119
June ..	117	128	120	126	120	124	109	115	110	119	116	118
July (b) ..			120	127	118	124	111	121	113	115	111	115
August ..			123	128	121	126	116	127	118	115	113	114
September ..			123	132	123	129	116	125	117	114	114	114
October ..			126	133	128	131	114	130	117	113	117	113
November ..			127	135	129	133	117	124	118	114	118	114
December ..			128	137	129	134	110	123	112	117	116	117
1938—	(c)											
January ..			123	134	116	128	98	112	100	116	117	110
February ..			125	131	131	133	104	108	107	120	120	120
March ..			127	139	134	137	107	120	110	119	125	120
April ..			126	137	127	134	107	121	109	119	125	120
May ..			126	132	128	131	110	117	111	115	122	116
June ..			127	130	122	127	112	118	113	110	114	111
Number of Factories in Sample ..		1,901			100			150			114	
Percentage of Employees (d) in Sample in 1936-37 ..		86			21			47			53	

For Footnotes see next page.

MONTHLY INDEX OF EMPLOYMENT IN FACTORIES—*continued.*

(Base : Average for Year 1928-29 = 100.)

Period.	Western Australia.			Tasmania.			Australia.			Australia divided by Index of Employee Population.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Number of Em- ployees (a) ..	16.0	3.8	19.8	7.7	2.3	10.0	315.9	116.1	432.0	..	..	..
1928-29 ..	100	100	100	100	100	100	100	100	100	100	100	100
1929-30 ..	94	98	94	105	99	104	92	95	93	91	93	92
1930-31 ..	68	76	69	85	83	84	73	79	75	71	76	72
1931-32 ..	61	75	63	84	87	85	70	84	74	68	80	71
1932-33 ..	68	81	70	86	90	87	78	93	82	74	87	77
1933-34 ..	75	85	77	93	89	92	86	99	90	81	92	84
1934-35 ..	83	92	85	101	97	100	96	108	100	89	99	92
1935-36 ..	98	107	100	112	103	110	107	116	109	98	105	100
1936-37 ..	107	113	108	122	103	118	114	121	116	104	108	105
1937-38 (b) ..	109	117	110	129	106	123	123	127	124	111	112	111
1937—												
January ..	109	112	110	125	99	119	112	114	113	102	102	102
February ..	109	113	110	132	112	128	115	124	118	105	110	106
March ..	110	112	110	133	117	129	117	126	119	106	112	108
April ..	109	111	109	130	106	125	118	125	120	107	111	108
May ..	108	111	109	127	105	122	118	123	119	107	109	108
June ..	107	110	108	123	104	119	119	122	120	107	108	108
July (b) ..	106	113	108	120	101	115	119	120	120	108	107	108
August ..	108	113	109	119	100	115	121	123	122	109	109	110
September ..	110	116	111	121	93	114	123	124	123	111	110	111
October ..	110	118	112	125	98	119	123	129	125	111	114	112
November ..	109	118	111	126	98	120	125	130	126	113	115	113
December ..	110	120	112	131	102	124	125	130	127	113	115	114
1938—												
January ..	109	119	111	133	115	129	122	119	122	110	105	109
February ..	109	123	112	134	115	130	123	130	125	111	115	112
March ..	110	119	112	136	119	132	126	133	128	113	117	114
April ..	110	115	111	135	110	129	125	129	126	112	114	113
May ..	109	115	110	133	112	128	123	130	125	110	114	111
June ..	106	113	107	131	112	126	122	127	123	110	111	110
Number of Factories in Sample ..	92			49			2,406			2,406		
Percentage of Employees (d) in Sample in 1936-37 ..	33			57			53			53		

(a) Number of employees in the base year, 1928-29 ('000), exclusive of working proprietors and those engaged solely on the delivery and sale of goods. (b) For 1937-38 indexes are based on sample returns, and will be revised. The indexes of total employment are based on total employment in sample factories. The male and female indexes are based on separate returns for males and females in 5 States (excluding New South Wales) adjusted so that the total of males and females agrees with the estimate of total employment.

(c) Not available. (d) The samples vary in quality, so the percentages are intended to give only a very rough idea of the relative accuracy of the estimates. Tasmania and South Australia have proved less, and Victoria more accurate than the relative size of the samples would suggest.

MONTHLY INDEX OF EMPLOYMENT IN RETAIL STORES.

(Base: July, 1933 = 100.)

Month.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.	Australian Index divided by Index of Employee Population.
1933—July ..	100	100	100	100	100	100	100	100
1933—34 ..	103	107	101	102	99	106	104	103
1934—35 ..	111	118	106	108	105	108	112	110
1935—36 ..	118	130	109	114	110	112	119	116
1936—37 ..	124	137	111	115	115	119	125	120
1937—38 ..	130	141	112	115	116	118	128	122
1936—								
July ..	122	130	109	116	113	107	121	117
August ..	120	128	109	115	111	113	120	116
September ..	120	128	109	118	113	115	120	116
October ..	121	133	110	112	116	116	122	118
November ..	123	139	111	115	116	119	125	121
December ..	137	155	121	125	127	132	138	133
1937—								
January ..	123	138	112	112	116	120	125	120
February ..	125	137	111	111	114	122	125	120
March ..	123	135	111	111	114	118	123	118
April ..	124	136	109	113	114	120	124	119
May ..	126	138	111	114	113	121	126	120
June ..	126	141	110	114	113	121	126	121
Average 1936—37	124	137	111	115	115	119	125	120
1937—								
July ..	129	137	110	115	115	124	127	121
August ..	126	133	110	112	113	121	124	118
September ..	126	135	110	117	113	123	125	119
October ..	127	140	110	113	114	123	127	121
November ..	129	143	110	115	116	125	129	123
December ..	144	161	123	129	126	138	144	137
1938—								
January ..	128	144	111	115	122	126	129	123
February ..	131	139	111	112	116	124	128	122
March ..	128	140	110	112	115	123	127	121
April ..	129	140	112	113	117	125	128	121
May ..	129	141	112	114	115	126	128	122
June (a) ..	131	142	113	114	114	126	129	122
Average 1937—38	130	141	112	115	116	118	128	122
Number of Establishments now furnishing Returns ..	599	102	120	35	69	14	939	..

(a) Indexes for later months may be obtained from the *Monthly Review of Business Statistics* and quarterly press notices on employment, issued by the Bureau.

NEW SOUTH WALES—EMPLOYMENT AND UNEMPLOYMENT OF ALL AVAILABLE
WAGE AND SALARY EARNERS.Percentage of all who are dependent on and
available for employment.

Period.	(a) Including as employed the full-time equivalent of part-time relief workers.		(b) Including all part-time relief workers as unemployed.	
	Employed.	Unemployed.	Employed.	Unemployed.
	%	%	%	%
1933-June (Census)	74.4	25.6	73.5	26.5
1933-34	77.9	22.1	75.9	24.1
1934-35	83.8	16.2	81.2	18.8
1935-36	88.6	11.4	86.1	13.9
1936-37	91.5	8.5	90.0	10.0
1937-38	95.7	4.3	94.5	5.5
1937-June	93.5	6.5	92.3	7.7
1938—				
January	94.6	5.4	93.5	6.5
February	96.0	4.0	95.0	5.0
March	96.0	4.0	94.9	5.1
April	96.0	4.0	94.9	5.1
May	95.8	4.2	94.8	5.2
June	96.1	3.9	95.1	4.9

The indexes were revised in November, 1937. In estimating the increase in the number of persons dependent on employment allowance is now made for (a) increase in the proportion of females who are wage-earners, and (b) youths who were without occupation but were not recorded in the wage-earning group at the Census of 1933. Adjustment for seasonal variations in employment is not made.

At the Census of 30th June, 1933, 15,142 persons dependent on employment returned themselves as unemployed by reason of illness, accident, etc., or "voluntarily". This number, representing 1.8 per cent. of all persons dependent on employment, is excluded from the above indexes, which relate to percentages of available wage-earners employed and unemployed. The approximate number of persons in private employment was 478,000 in June, 1933; 510,000 in June, 1934; 567,000 in June, 1935; 614,000 in June, 1936; 653,000 in June, 1937; and 689,000 in June, 1938.

QUEENSLAND—EMPLOYMENT AND UNEMPLOYMENT AMONG MEN WAGE AND
SALARY EARNERS.

Period.	(a) Including as employed the full-time equivalent of "intermittent relief workers."		(b) Including "intermittent relief workers" as unemployed.	
	Employed.	Unemployed.	Employed.	Unemployed.
	%	%	%	%
1929	89.9	10.1	89.9	10.1
1930	86.4	13.6	85.6	14.4
1931	77.2	22.8	74.3	25.7
1932	77.8	22.2	72.9	27.1
1933	79.8	20.2	73.9	26.1
1934	84.9	15.1	80.1	19.9
1935	89.0	11.0	84.4	15.6
1936	92.3	7.7	87.4	12.6
1937	94.0	6.0	90.3	9.7
3 months ended—				
1937—				
March	91.4	8.6	87.8	12.2
June	94.3	5.7	90.5	9.5
September	95.0	5.0	91.4	8.6
December	95.5	4.5	91.9	8.1
1938—				
January	95.4	4.6	91.8	8.2
February	95.3	4.7	91.8	8.2
March	95.4	4.6	91.7	8.3
April	95.2	4.8	91.6	8.4
May	95.3	4.7	91.7	8.3
June	95.4	4.6	91.8	8.2

The above table is in terms of full-time employment and unemployment. Normal seasonal variation is excluded. Allowance has been made for an estimated annual increase of 1.5 per cent. in the number of men dependent on employment. The approximate number of men in employment in 1937, excluding relief workers, was 167,760.

5. *Special Legislation for the Relief of Unemployment.*—The position in regard to unemployment in Australia became so serious during 1930 that the usual methods of providing funds for relief works and sustenance were found to be inadequate. The cessation of loans, and the general depression in industry and business, due mainly to the decline in the prices of primary products, brought about an economic crisis in all States. The number of persons thrown out of work increased rapidly with little prospect of conditions improving during the immediate future. The Commonwealth and State Governments realized that special action was necessary to provide additional funds to relieve the distress caused by continued unemployment, as the money ordinarily available was not sufficient to meet the abnormal conditions.

Special grants to the States were made by the Commonwealth Government, while special legislation relating to the relief of unemployment was enacted in practically all the States. In New South Wales, Victoria and Queensland, the Acts provided for special taxation for the purpose of creating funds for relief works and sustenance for the unemployed. The funds necessary for the relief of unemployment in South Australia, Western Australia and Tasmania were provided from Revenue.

Further references to the special legislation relating to unemployment, rates of tax and sustenance payments will be found in Labour Reports, Nos. 22 to 28.

§ 3. Apprenticeship.

In Year Book No. 16, pp. 602-3, was given particulars of legislation relating to the question of apprenticeship. Tables were included showing the periods of apprenticeship fixed in the awards of the various industrial tribunals of the States and Commonwealth, also the proportion of apprentices to journeymen and journeywomen. This information has been omitted from the present issue. Reference to legislation covering apprenticeship will be found in the Appendix to Official Year Book, No. 23.

E.—ASSOCIATIONS.

§ 1. Labour Organizations.

1. **Registration.**—(i) *Under Trade Union Acts.* The benefits obtained by registering trade unions under the Trade Union Acts in force in the various States are not considered of much value, consequently the statistics of registered trade unions of employees do not accurately represent the position of unionism. Further, the returns for past years are so defective as to be practically valueless, inasmuch as no reliable indication is afforded of the numerical and financial position of the unions. Some of the registered unions fail to supply returns; this non-supply may lead to cancellation of the registration. Others have obtained the cancellation of their certificates of registration, the apparent reason being that they proposed to register under the Commonwealth Conciliation and Arbitration Act or a State Arbitration Act. In Queensland, some of the largest labour unions withdrew from registration during 1911, mainly on account of the necessity for closer restriction of their objects as set forth in their rules, consequent on legal decisions affecting trade unions. In Victoria and in South Australia very few of the existing unions are registered under the Trade Union Acts. It will be seen, therefore, that the available information under this heading is too meagre for statistical purposes.

(ii) *Under Industrial Arbitration Acts.* Information with regard to registrations of employers' associations and trade unions under the various State Industrial Arbitration Acts will be found in previous issues of the Year Book. The latest information available as to registrations is as follows:—New South Wales, 171 industrial unions of employers and 156 industrial unions of employees, the membership not being available in either case; Queensland, 12 industrial unions of employers with 11,790 members, and 77 industrial unions of employees with approximately 160,344 members; South Australia, 27 organizations of employees with 18,754 members; Western Australia, 32 organizations of employers with 865 members, and 137 organizations of employees with 43,073 members. There is no provision in the South Australian Industrial Acts for the registration of organizations of employers, and in Victoria and Tasmania, where Wages Board systems of wage fixation are in operation, organizations of employers and employees are not required to register. Registration under Commonwealth legislation began in 1906. In that and the four years following, there was but one union of employers; another was registered in 1911. The unions of employees registered were 20 in 1906, with 41,413 members. On 31st December, 1937, there were 31 registered organizations of employers and 139 registered organizations of employees, with a total estimated membership for the latter of 696,000.

2. **Particulars regarding Trade Unions.**—(i) *Types.* The trade unions in Australia are very diverse in character, and range from the small independent association to the large interstate organization, which, in its turn, may be merely a branch of a British or International union. Broadly speaking, there are four distinct classes of labour organizations:—(i) the local independent; (ii) the State; (iii) the interstate; and

(iv) the Australasian or International; but a number of variations occur from each of these classes. The leading characteristics of each of these types were briefly outlined in Labour Report No. 2 (pp. 7 to 9) issued by this Bureau.

(ii) *Number and Membership.* As already stated, the figures for trade unions registered under the Acts do not represent the position of unionism in Australia. In 1912 the Labour and Industrial Branch of the Commonwealth Bureau of Census and Statistics was established and with the cordial co-operation of the officials of the labour organizations comprehensive figures relating to the development of organized labour are now available. The following table shows the position at the end of 1937 :—

TRADE UNIONS, BRANCHES AND MEMBERS, 1937.

State or Territory.	Number of Separate Unions.	Number of Branches.	Number of Members.
New South Wales	184	571	333,879
Victoria	147	396	209,794
Queensland	110	309	162,212
South Australia	113	171	63,770
Western Australia	132	198	65,053
Tasmania	76	70	19,208
Northern Territory	6	..	912
Australian Capital Territory	15	1	1,455
Total	783	1,716	856,283
Australia (a)	358 (a)	2,141 (b)	856,283

(a) Allowing for interstate duplication. The figures represent the number of distinct organizations and interstate groups of organizations in Australia—not the total number of organizations which are practically independent and self-governing. (b) See remarks below.

In the preceding table the number of separate unions in each State refers to the number of unions which are represented in each State, exclusive of branches therein, and each union is counted once only. Except in the last line, the number of branches indicates the number of branches of State head offices, which may, of course, themselves be branches of an interstate or larger organization. In taking the total number of separate unions in Australia (see last line but one), it is obvious that, in the case of interstate and similar unions, there will be duplication, since each such union is counted once in each State in which it has any branches. In the figures given in the last line, allowance has been made for this duplication. State branches of interstate or federated unions, as well as sub-branches within a State, are included under the heading "Branches" in the third column—last line. The scheme of organization of these interstate or federated unions varies greatly in character, and the number of separate Commonwealth unions does not, therefore, fairly represent the number of practically independent organizations in Australia. In some of these unions the State organizations are bound together under a system of unification and centralized control while in others the State units are practically independent and self-governing, the federal bond being loose and existing only for one or two specified purposes. There are, therefore, 358 distinct organizations and interstate groups of organizations in Australia, having 2,141 State branches and sub-branches, and a total of 856,283 members.

(iii) *Classification in Industrial Groups.* The following table shows the number of unions and members thereof in Australia at the end of each of the last five years. The number of unions specified refers to the number of different unions represented in each

State; and, while interstate or federated unions are counted once in each State in which they are represented, sub-branches within a State are not counted:—

TRADE UNIONS.—INDUSTRIAL GROUPS, AUSTRALIA.

Industrial Groups.	1933.	1934.	1935.	1936.	1937.
NUMBER OF UNIONS.					
Manufacturing:—	(a)	(a)	(a)	(a)	(a)
I. Wood, Furniture, etc. ..	18 (4)	17 (4)	17 (4)	17 (4)	17 (4)
II. Engineering, Metal Works, etc. ..	63 (22)	63 (22)	61 (21)	63 (21)	63 (22)
III. Food, Drink, Tobacco, etc. ..	62 (34)	62 (32)	63 (32)	69 (33)	70 (35)
IV. Clothing, Hats, Boots, etc. ..	24 (11)	24 (11)	24 (11)	24 (11)	24 (11)
V. Books, Printing, etc. ..	15 (10)	15 (9)	15 (9)	14 (8)	14 (7)
VI. Other Manufacturing ..	77 (37)	76 (36)	73 (34)	73 (35)	73 (36)
VII. Building ..	51 (28)	51 (28)	49 (26)	49 (27)	49 (27)
VIII. Mining, Quarrying, etc. ..	16 (12)	17 (14)	16 (13)	16 (13)	15 (12)
IX. Railway and Tramway Services..	51 (29)	51 (29)	52 (30)	50 (29)	50 (28)
X. Other Land Transport ..	11 (4)	10 (4)	10 (4)	11 (4)	12 (5)
XI. Shipping, etc. ..	55 (22)	55 (22)	55 (22)	55 (21)	55 (21)
XII. Pastoral, Agricultural, etc. ..	9 (4)	10 (6)	10 (7)	11 (7)	9 (8)
XIII. Domestic, Hotels, etc. ..	20 (16)	20 (15)	19 (14)	20 (15)	20 (15)
XIV. Miscellaneous—					
(i) Banking, Insurance and Clerical ..	30 (19)	30 (19)	32 (19)	32 (16)	32 (16)
(ii) Public Service ..	145 (45)	145 (45)	148 (47)	148 (48)	148 (47)
(iii) Retail and Wholesale ..	8 (7)	8 (7)	8 (8)	8 (8)	8 (8)
(iv) Municipal, Sewerage and Labouring ..	13 (12)	13 (11)	16 (11)	16 (11)	16 (11)
(v) Other Miscellaneous ..	107 (39)	108 (41)	108 (42)	108 (45)	108 (45)
Total	775 (356)a	775 (355)a	776 (354)a	784 (356)a	783 (358)a

NUMBER OF MEMBERS.

Manufacturing—					
I. Wood, Furniture, etc. ..	27,164	25,886	27,079	25,365	27,465
II. Engineering, Metal Works, etc. ..	69,244	73,353	76,070	79,047	83,993
III. Food, Drink, Tobacco, etc. ..	62,103	65,663	68,292	72,120	76,702
IV. Clothing, Hats, Boots, etc. ..	50,173	56,484	59,484	62,269	66,323
V. Books, Printing, etc. ..	18,113	18,285	18,808	19,425	20,461
VI. Other Manufacturing ..	42,577	43,720	44,388	46,832	49,323
VII. Building ..	52,936	53,140	51,034	56,727	59,484
VIII. Mining, Quarrying, etc. ..	30,166	36,560	36,636	40,184	44,912
IX. Railway and Tramway Services..	90,521	91,035	97,443	94,944	97,435
X. Other Land Transport ..	16,408	13,566	10,539	10,287	15,820
XI. Shipping, etc. ..	32,691	29,363	26,388	27,346	27,611
XII. Pastoral, Agricultural, etc. ..	20,907	22,599	28,782	31,869	34,624
XIII. Domestic, Hotels, etc. ..	20,849	19,585	19,043	16,091	15,933
XIV. Miscellaneous:—					
(i) Banking, Insurance and Clerical ..	27,884	33,947	34,405	35,315	36,044
(ii) Public Service ..	79,809	77,355	82,776	83,484	84,710
(iii) Retail and Wholesale ..	26,426	29,009	32,619	32,178	33,055
(iv) Municipal, Sewerage and Labouring ..	30,261	32,482	38,026	39,603	40,948
(v) Other Miscellaneous ..	41,076	40,515	38,118	41,723	41,425
Total	739,398	762,567	790,830	814,809	856,283

(a) Allowing for interstate duplication.

(iv) *Trade Unions—Numbers of Male and Female Members and Percentages to total Employees—Australia.* The Census discloses the percentage of male and female employees (i.e., persons in "receipt of wage or salary," and persons "unemployed"), 20 years of age

and over, on the total male and female population, and by applying these percentages to the estimated total male and female populations at the end of each year, an estimate of the number of adult employees of each sex in the year is obtained.

The following table shows separately for males and females (a) the number of members of trade unions; (b) the estimated number of employees of each sex 20 years of age and over in all professions, trades and occupations; and (c) the percentage of the former (a) on the latter (b) at the end of each year, 1933 to 1937. The estimated number of employees includes all persons (over the age specified) in receipt of wages or salary, as well as those unemployed, and therefore embraces a large number of adults who are not eligible for membership of any trade union, such as certain persons employed in professional occupations, as well as others who, while eligible for membership so far as the nature of their trade or occupation is concerned, do not reside in a locality which is covered by any union devoted to their particular trade or occupation. Moreover the age at which persons are eligible for membership varies in different unions. The census results are classified in quinquennial age groups, and age 20 years is taken as approximating to the age of admission to membership. A line has also been added showing the estimated numbers of "junior" workers under 20 years of age:—

TRADE UNIONS—NUMBER OF MALE AND FEMALE MEMBERS AND PERCENTAGE
TO TOTAL EMPLOYEES.—AUSTRALIA.

Particulars.	1933.	1934.	1934.	1936.	1937.
MALES.					
Estimated No. of Adult Employees (20 years of age and over)	1,341,200	1,393,155	1,401,286	1,426,109	1,448,204
No. of Members of Unions	624,260	641,370	662,447	685,795	720,587
Percentage of Members on Estimated Number of Adult Employees	46.6	46.0	47.3	48.1	49.8
Junior Workers (under 20)	249,010	253,682	255,160	265,176	268,334
FEMALES.					
Estimated No. of Adult Employees (20 years of age and over)	321,500	303,255	366,102	377,334	383,674
No. of Members of Unions	113,132	121,797	128,383	129,014	135,696
Percentage of Members on Estimated Number of Adult Employees	35.2	33.4	35.1	34.2	35.4
Junior Workers (under 20)	141,960	158,863	160,120	155,305	157,245
TOTAL.					
Estimated No. of Adult Employees (20 years of age and over)	1,665,700	1,750,410	1,767,388	1,803,443	1,831,878
No. of Members of Unions	739,398	762,567	790,830	814,809	856,283
Percentage of Members on Estimated Number of Adult Employees	44.4	43.4	44.7	45.2	46.7
Junior Workers (under 20)	399,970	412,545	415,280	420,481	425,579

(v) *Interstate or Federated Unions.* The following table gives particulars as to the number and membership of interstate or federated unions in 1937:—

INTERSTATE OR FEDERATED UNIONS.—AUSTRALIA, 1937.

Particulars.	Unions Operating in—					Total
	2 States.	3 States.	4 States.	5 States.	6 States. (a)	
Number of Unions	18	12	18	19	46	113
Number of Members	29,863	17,802	131,468	172,799	366,172	718,104

(a) Certain unions in this group have, in addition to branches in each of the six States, branches in the Northern Territory and the Australian Capital Territory.

It appears, therefore, that 113 out of the 358 separate associations and groups of associations in Australia are organized on an interstate basis. The membership of these 113 unions was 718,104 or 84 per cent. of the membership of all unions.

3. *Central Labour Organizations.*—In each of the capital cities and in a number of industrial centres elsewhere, delegate organizations consisting of representatives from a group of trade unions have been established. Their revenue is raised by means of a per capita tax on the members of each affiliated union. In most of the towns where such central organizations exist, the majority of the local unions are affiliated with the central organization, which is usually known as the Labour or the Trades Hall Council, or the Labour Federation. In Western Australia a unified system or organization extends over the industrial centres throughout the State. In this State there is a provincial branch of the Australian Labour Party, having a central council and executive, and metropolitan and branch district councils, to which the local bodies are affiliated. The central council, on which all district councils are represented, meets periodically. In the other five States, however, the organization is not so close, and, while provision usually exists in the rules of the central council at the capital city of each State for the organization of district councils or for the representation of the central council on the local councils in the smaller industrial centres of the State, the councils in each State are, as a matter of fact, independent bodies.

A new Central Labour Organization, called the Australasian Council of Trade Unions, came into being during 1927. The Council was created to function on behalf of the Trade Unions of Australia, and was founded at an All-Australian Trade Union Congress held in Melbourne in May, 1927. The Australasian Council is based on the Metropolitan Trades and Labour Councils in each State, such bodies having the right to appoint two representatives to act on the Executive of the Council. The Metropolitan Trades and Labour Councils are the branches of the Australasian Council. In addition to the representatives from the Metropolitan Councils, the Executive consists of four officers—the President, two Vice-Presidents, and a Secretary, who are elected by and from the All-Australian Trade Union Congress.

The objective of the Council is the socialization of industry, i.e., production and exchange. The methods to be adopted are: (a) The closer organization of the workers by the transformation of the Australasian Trade Union Movement from the Craft to an Industrial basis by the establishment of one Union in each industry; (b) the consolidation of the Australasian Labour Movement with the object of unified control, administration and action; (c) the centralized control of industrial disputes; and (d) educational propaganda among unions. The Australasian Council of Trade Unions

is the first interstate body in Australia with authority to deal with industrial matters of an interstate character affecting the Trade Union movement generally. It is also the body responsible for submitting to the Commonwealth Government the names of persons suitable for selection as the Australian workers' delegate to the Annual International Labour Conference at Geneva.

The table below shows the number of metropolitan and district or local labour councils, together with the number of unions and branches of unions affiliated thereto, in each State at the end of the year 1937 :—

CENTRAL LABOUR ORGANIZATIONS.—NUMBER, AND UNIONS AFFILIATED, 1937.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Total.
Number of Councils	3	5	6	2	8	2	1	27
Number of Unions and Branch Unions affiliated ..	91	167	85	53	213	59	10	678

The figures given in the preceding table concerning the number of unions do not necessarily represent separate unions, since the branches of a large union may be affiliated to the local trades councils in the several towns in which they are represented.

Between the trade union and the central organization of unions may be classed certain State or district councils organized on trade lines, and composed of delegates from separate unions the interests of the members of which are closely connected by reason of the occupation of their members. Delegate councils of bakers, bread carters and mill employees, or of unions connected directly or indirectly with the iron, steel, or brass trades, or with the building trades, may be so classed.

4. **Laws relating to Conditions of Labour.**—In Official Year Book No. 10, pp. 538 to 566, a conspectus was given of Labour Laws in force in Australia at the end of the year 1922, and of Acts and Regulations relating to Factories and Shops.

Information was contained in the same issue regarding employment under Mining Acts, followed by a brief reference to Employers' Liability and Workmen's Compensation Acts and miscellaneous legislation relating to conditions of labour enacted by the States. A conspectus of the Tribunals for the Regulation of Wages and Conditions of Labour was also included.

§ 2. Employers' Associations.

1. **General.**—Recent investigations show that the spirit of association is no less manifest in the case of employers than in the case of workers. Associations for trade purposes merely are not included in the present chapter, which deals with those associations only whose members are united for their own protection, and for representation in cases before Arbitration Courts, Wages Boards and other wage-fixing tribunals. Associations of employers and employees are recognized under the Commonwealth Conciliation and Arbitration Act as well as under several State Acts, and organizations of these bodies may be registered.

The year 1922 was the first for which information was collected, and detailed particulars for that and subsequent years will be found in previous issues of the Official Year Book and in the Labour Reports.

2. Employers' Associations in each State.—The following table gives particulars of the number of employers' associations in each State at the end of the years 1933 to 1937 :—

EMPLOYERS' ASSOCIATIONS.

Year.	N.S.W.	Victoria.	Q'land.	S.A.	W.A.	Tas.	Total.
NUMBER OF ASSOCIATIONS.							
1933	140	153	80	58	62	28	521
1934	(a) 134	157	74	60	54	26	505
1935	(a) 131	156	72	60	56	25	500
1936	(a) 134	150	73	61	58	30	506
1937	(a) 134	149	78	61	59	30	511

NUMBER OF BRANCHES.

Year.	N.S.W.	Victoria.	Q'land.	S.A.	W.A.	Tas.	Total.
1933	897	508	189	15	288	8	1,905
1934	810	520	135	15	301	8	1,789
1935	786	559	135	13	302	8	1,803
1936	806	608	393	32	296	6	2,141
1937	681	548	394	33	184	10	1,850

MEMBERSHIP.

Year.	N.S.W.	Victoria.	Q'land.	S.A.	W.A.	Tas.	Total.
1933	56,384	37,929	18,721	6,452	10,311	2,391	132,188
1934	a 58,387	38,276	18,943	6,765	10,464	2,095	134,930
1935	a 59,444	37,765	18,556	7,536	10,791	2,087	136,179
1936	a 60,135	50,262	35,764	8,813	11,193	2,257	a 168,424
1937	a 61,747	50,566	33,150	9,081	10,978	2,152	a 169,674

(a) Includes one association in the Australian Capital Territory.

There has been a large increase in the number of branches since the year 1926, due to the inclusion of associations representing agricultural interests, while the increase in total membership is partly attributable to a more complete collection of statistics relating to these organizations.

3. Employers' Associations in Industrial Groups.—The figures in the following table refer to Australia at the end of the years 1936 and 1937 :—

EMPLOYERS' ASSOCIATIONS.—INDUSTRIAL GROUPS, AUSTRALIA.

Class.	Number of Associations.		Number of Branches.		Membership.	
	1936.	1937.	1936.	1937.	1936.	1937.
Manufacturing :—						
I. Wood, Furniture, etc. ..	20	20	5	16	1,195	1,222
II. Engineering, etc. ..	13	17	12	12	2,378	2,500
III. Food, Drink, etc. ..	106	103	78	92	20,950	20,504
IV. Clothing, Hats, etc. ..	17	16	5	11	1,052	1,932
V. Books, Printing, etc. ..	39	41	..	..	2,991	3,210
VI. Other Manufacturing ..	40	42	1	2	3,318	3,567
VII. Building	25	24	4	9	2,060	2,010
VIII. Mining, Quarrying, etc. ..	11	11	..	1	296	282
X. Other Land Transport ..	13	19	..	9	1,835	3,387
XI. Shipping, etc. ..	19	18	3	3	269	263
XII. Pastoral, Agricultural, etc. ..	50	52	1,978	1,648	103,280	109,363
XIII. Domestic, Hotels, etc. ..	17	18	25	..	8,450	1,705
XIV. Miscellaneous	136	130	30	47	19,744	19,069
Total	506	511	2,141	1,850	168,424	169,674

The female membership of these associations was 6,115 for 1936, and 7,000 for 1937.

The organization of employers is relatively strongest in the pastoral and agricultural industries and in the manufacture and distribution of articles of food and drink. In the former case there has been considerable growth in organization among small farmers, and in the latter, the number of small shops purveying foodstuffs of which the proprietors are members of grocers', butchers' and other similar associations accounts for the large membership.

4. **Federations of Employers' Associations.**—In addition to the associations in various industries, there are central associations in each State to which many of these separate organizations are affiliated. Examples of this kind of association are provided in the Chamber of Manufacturers, Chamber of Commerce and Employers' Federation in each State. Further, these State associations are, in some cases, organized on a federal basis, e.g., there is an Associated Chamber of Manufacturers, and Associated Chamber of Commerce, or a Central Council of Employers, to which State branches are affiliated.

The affiliation of these associations is, however, of a very loose nature when compared with that of the Federated Trade Unions. Whereas in the latter case the central body has complete control of its State branches, in the case of the Employers' Associations each State body enjoys complete independence, the central body acting in a more or less advisory capacity only.

The following table gives particulars so far as can be ascertained, of interstate or federated associations having branches in two or more States from 1933 to 1937:—

INTERSTATE OR FEDERATED EMPLOYERS' ASSOCIATIONS.

Year.	Associations Operating in—					Total.
	2 States.	3 States.	4 States.	5 States.	6 States.	
NUMBER OF ASSOCIATIONS.						
1933	6	4	5	14	16	45
1934	4	2	12	8	17	43
1935	4	2	10	6	20	42
1936	5	2	8	6	17	38
1937	3	3	10	10	17	43
NUMBER OF MEMBERS.						
1933	1,354	290	1,118	66,144	35,299	104,205
1934	2,438	56	44,745	22,947	34,026	104,212
1935	10,529	57	3,311	63,155	37,723	114,775
1936	11,315	904	1,013	22,324	104,896	140,452
1937	9,351	2,019	1,118	92,049	38,908	143,445

The above table shows that associations having 84 per cent. of the total membership of employers' organizations are grouped together on an interstate basis.

F.—COMPARATIVE INDEX-NUMBERS.

In order to show the relative movements of certain price and related data the following table of annual and quarterly index-numbers for the six capital cities combined has been compiled with a common base 1911 = 1,000.

COMPARATIVE INDEX-NUMBERS FOR THE SIX CAPITAL CITIES COMBINED.

(Base (a) of each Section : Weighted Average of Six Capitals 1911 = 1,000.)

Period.	Food and Groceries.	Housing.		Food and Housing.		All Items of Household Expenditure.	Wholesale Prices Melbourne.	Nominal Wages, Adult Males.	Real Wages. (b)	Percentage of Unemployment among Trade Unionists.
		All Houses.	1 and 5 Rooms.	All Houses.	1 and 5 Rooms.					
Year—						(c) 1,000	1,000	1,000	1,000	%
1911 ..	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	4.7
1914 ..	1,144	1,135	1,082	1,140	1,121	1,140	1,149	1,081	948	3.3
1921 ..	1,902	1,404	1,410	1,097	1,717	1,080	1,822	1,070	1,070	11.2
1928 ..	1,761	1,758	1,743	1,760	1,755	1,675	1,792	1,963	1,115	10.8
1929 ..	1,866	1,760	1,754	1,822	1,824	1,713	1,803	1,972	1,082	11.1
1930 ..	1,682	1,685	1,711	1,683	1,693	1,618	1,596	1,939	1,152	19.3
1931 ..	1,477	1,483	1,473	1,479	1,475	1,445	1,428	1,752	1,185	27.4
1932 ..	1,425	1,374	1,336	1,403	1,391	1,377	1,411	1,639	1,168	29.0
1933 ..	1,342	1,356	1,314	1,345	1,332	1,335	1,409	1,584	1,178	25.1
1934 ..	1,400	1,365	1,324	1,385	1,371	1,355	1,468	1,590	1,148	20.5
1935 ..	1,442	1,388	1,372	1,420	1,416	1,380	1,469	1,609	1,133	16.5
1936 ..	1,475	1,441	1,437	1,461	1,461	1,409	1,543	1,635	1,119	12.2
1937 ..	1,521	1,480	1,488	1,507	1,510	1,448	1,656	1,704	1,131	9.3
Quarter—										
1928.										
March	1,771	1,765	1,744	1,768	1,761	1,675	1,840	1,966	1,112	10.7
June ..	1,784	1,760	1,745	1,774	1,769	1,684	1,820	1,963	1,107	11.2
Sept. ..	1,745	1,752	1,741	1,748	1,744	1,670	1,764	1,963	1,123	11.4
Dec. ..	1,746	1,752	1,742	1,749	1,744	1,670	1,744	1,959	1,120	9.9
1929.										
March	1,859	1,763	1,758	1,820	1,821	1,713	1,788	1,958	1,076	9.3
June ..	1,865	1,759	1,753	1,821	1,823	1,713	1,794	1,977	1,086	10.0
Sept. ..	1,867	1,761	1,754	1,823	1,824	1,713	1,834	1,979	1,086	12.1
Dec. ..	1,873	1,755	1,751	1,825	1,827	1,712	1,799	1,974	1,082	13.1
1930.										
March	1,751	1,752	1,782	1,752	1,763	1,670	1,680	1,973	1,126	14.6
June ..	1,734	1,724	1,744	1,720	1,738	1,653	1,667	1,956	1,131	18.5
Sept. ..	1,673	1,662	1,692	1,668	1,680	1,607	1,599	1,939	1,162	20.5
Dec. ..	1,568	1,660	1,625	1,582	1,590	1,542	1,438	1,887	1,193	23.4
1931.										
March	1,538	1,557	1,560	1,546	1,546	1,500	1,453	1,814	1,173	25.8
June ..	1,496	1,507	1,501	1,498	1,498	1,464	1,437	1,764	1,175	27.6
Sept. ..	1,435	1,464	1,447	1,447	1,439	1,423	1,406	1,735	1,199	28.3
Dec. ..	1,439	1,406	1,382	1,425	1,418	1,406	1,418	1,694	1,189	28.0
1932.										
March	1,465	1,391	1,358	1,435	1,425	1,403	1,434	1,680	1,171	28.3
June ..	1,448	1,378	1,345	1,419	1,409	1,389	1,410	1,672	1,178	30.0
Sept. ..	1,416	1,367	1,327	1,395	1,382	1,370	1,418	1,608	1,153	29.6
Dec. ..	1,369	1,359	1,314	1,363	1,348	1,346	1,384	1,597	1,172	28.1
1933.										
March	1,317	1,357	1,318	1,330	1,318	1,327	1,336	1,585	1,192	26.5
June ..	1,337	1,354	1,314	1,340	1,329	1,334	1,401	1,505	1,189	25.7
Sept. ..	1,359	1,355	1,311	1,355	1,341	1,340	1,467	1,587	1,171	25.1
Dec. ..	1,355	1,357	1,311	1,354	1,339	1,337	1,432	1,570	1,160	23.0
1934.										
March	1,371	1,360	1,315	1,365	1,350	1,344	1,456	1,572	1,152	21.9
June ..	1,404	1,365	1,319	1,387	1,372	1,358	1,463	1,502	1,148	20.9
Sept. ..	1,401	1,367	1,331	1,387	1,375	1,357	1,492	1,506	1,151	20.4
Dec. ..	1,422	1,368	1,332	1,400	1,388	1,361	1,474	1,599	1,142	18.8
1935.										
March	1,420	1,374	1,356	1,401	1,396	1,368	1,451	1,604	1,145	18.6
June ..	1,425	1,381	1,363	1,407	1,402	1,371	1,456	1,605	1,141	17.8
Sept. ..	1,461	1,394	1,379	1,433	1,430	1,389	1,491	1,609	1,123	15.9
Dec. ..	1,460	1,403	1,390	1,437	1,434	1,391	1,479	1,617	1,125	13.7
1936.										
March	1,445	1,419	1,413	1,434	1,433	1,391	1,475	1,620	1,130	13.4
June ..	1,455	1,430	1,425	1,445	1,444	1,397	1,520	1,625	1,125	12.8
Sept. ..	1,489	1,454	1,449	1,475	1,474	1,420	1,570	1,637	1,110	12.0
Dec. ..	1,510	1,461	1,461	1,490	1,491	1,430	1,607	1,656	1,111	10.7
1937.										
March	1,510	1,468	1,470	1,493	1,495	1,433	1,638	1,659	1,111	9.9
June ..	1,507	1,480	1,483	1,496	1,498	1,441	1,660	1,677	1,121	9.7
Sept. ..	1,526	1,494	1,499	1,513	1,516	1,454	1,710	1,718	1,135	9.3
Dec. ..	1,540	1,503	1,510	1,524	1,529	1,465	1,617	1,760	1,155	8.2

(a) The index-numbers given in the separate columns of the table cannot be compared with each other in order to show the relative cost of housing, and food and groceries, since the cost in 1911 of each group or combination is made equal to 1,000. (b) Calculated by Food and Rent of All Houses ("A" Series) Index. See p. 568 for Real Wages under the "C" Series Index. (c) Taken back from true base (November, 1914) by means of the Food and Rent of All Houses ("A" Series) Index.

CHAPTER XVIII.

MINERAL INDUSTRY.

(NOTE.—A table showing particulars of mineral production for the year 1937 will be found in the Appendix. With the exception of gold this information was not available at the time of compilation of this chapter. Details of gold production are included in § 2 hereinafter.)

§ 1. The Mineral Wealth of Australia.

1. *Place of Mining in Australian Development.*—The value of production from the mineral industry is now considerably less than that returned by the agricultural or the pastoral industry, nevertheless it was the discovery of gold in payable quantities that first attracted population to Australia in large numbers and thus accelerated its national development.

2. *Extent of Mineral Wealth.*—The extent of the total mineral wealth of Australia cannot yet be regarded as completely ascertained, as large areas of country still await systematic prospecting. More detailed reference to this matter will be found in preceding Official Year Books. (See No. 22, p. 755.)

3. *Quantity and Value of Production in 1936.*—The quantities (where available) and the values of the principal minerals produced in each State, and in Australia as a whole, during the year 1936 are given in the tables immediately following. It must be clearly understood that the figures quoted in these tables refer to the quantities and values of the various minerals in the form in which they were reported to the State Mines Departments, and represent amounts which the Mines Departments consider may fairly be taken as accruing to the mineral industry as such. They are not to be regarded as representative of Australia's potentiality as a producer of *metals* this matter being dealt with separately in § 17 hereinafter. New South Wales is, of course, in normal times, a large producer of iron and steel from ironstone mined in South Australia. As the table shows, the latter State receives credit for this ironstone in its mineral returns. The iron and steel produced therefrom cannot be assigned to the mineral industry of New South Wales, but the value of the transformation from ore to metal is credited to the manufacturing industry of that State. Similarly lead, silver-lead and zinc are credited in the form reported to the State of origin—chiefly New South Wales—although the actual metal extraction is carried out principally in South Australia and Tasmania.

MINERAL PRODUCTION.—QUANTITIES, 1936.

Minerals.	Unit.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T. (c)	Australia.
Antimony ..	ton	92	194	9	..	..	..	..	295
Arsenic ..	..	122	..	..	..	3,470	..	..	3,592
Asbestos ..	cwt.	..	..	..	80	3,180	..	..	3,260
Barytes ..	ton	147	..	..	1,977	..	33	..	2,157
Bitumth ..	cwt.	1	..	364	..	..	..	..	365
Brown Coal ..	ton	..	3,044,897	..	..	..	..	..	3,044,897
Coal ..	..	9,199,466	426,725	1,046,879	..	565,075	132,264	..	11,370,409
Copper (ingot, matte, etc.) ..	..	1,373	..	3,828	451	2	13,030	198	18,882
Diatomaceous earth ..	..	2,303	104	371	..	..	..	..	2,778
Gold ..	fine oz.	60,739	117,596	121,174	7,681	846,208	17,600	8,753	1,179,751
Gypsum ..	ton	4,321	7,461	..	107,151	6,661	..	..	125,594
Ironstone ..	..	3,440	..	2,301	1,887,298	..	..	..	1,893,039
Kaolin ..	..	20,950	5,186	..	200	..	..	..	35,336
Lead ..	..	(b)	..	35,763	10	..	7,563	..	(d) 43,336
Lead and silver- lead ore, concen- trates, etc. ..	..	255,998	..	..	..	1,535	..	..	257,533

(b) See letterpress preceding this table.

(c) Year ended 30th June.

(d) Incomplete.

MINERAL PRODUCTION.—QUANTITIES, 1936—continued.

Minerals.	Unit.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T. (c)	Australia.
Limestone flux ..	ton	118,428	..	15,230	13,622	..	262,301	..	409,581
Magnesite ..	..	17,183	216	100	116	..	..	..	17,615
Manganese ore ..	..	72	..	..	..	..	..	..	72
Molybdenite ..	cwt.	3	..	400	..	..	..	..	403
Osmiridium ..	oz.	..	..	..	..	..	281	..	281
Phosphate ..	ton	175	..	..	..	..	..	..	175
Pigments ..	..	623	..	..	53	..	..	..	676
Platinum ..	oz.	47	..	..	..	..	..	..	47
Salt ..	ton	..	(a)	..	66,326	..	..	..	(d) 66,326
Sapphires ..	oz.	372	..	..	..	..	..	..	372
Shale (oil) ..	ton	..	..	..	..	..	..	..	..
Silver ..	fine oz. (b)	56,994	7,964	3,084,008	1,560	105,219	906,458	..	4,162,203
Tin and tin ore ..	ton	1,114	86	1,108	..	50	1,004	30	3,392
Wolfram ..	cwt.	105	..	404	..	..	4,143	1,721	6,373
Zinc and concen- trates ..	ton	220,767	..	30,443	..	..	18,769	..	269,979

(a) Not available for publication.
ended 30th June.

(b) See letterpress preceding this table.

(c) Year

(d) Incomplete.

The values of the minerals raised in each State in 1936 are given in the following table:—

MINERAL PRODUCTION.—VALUE, 1936.

Minerals.	N.S.W. (a)	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	N.T. (d)	Australia.
	£	£	£	£	£	£	£	£
Antimony ..	1,772	1,866	366	..	..	..	..	4,004
Arsenic ..	4,065	..	..	..	62,460	..	..	66,525
Asbestos ..	..	..	..	714	3,479	..	..	4,193
Barytes ..	216	..	..	2,380	..	66	..	2,662
Bismuth ..	17	..	8,150	..	..	..	..	8,167
Brown Coal ..	..	323,914	..	..	..	..	..	323,914
Coal ..	5,126,850	253,835	858,732	..	331,565	92,269	..	6,663,251
Copper (ingot and matte) ..	53,687	..	161,688	22,609	97	556,734	1,871	796,686
Diamonds ..	650	..	..	..	..	..	..	650
Diatomaceous earth ..	4,606	429	1,155	..	..	..	..	6,190
Gems ..	198	..	2,038	..	..	..	..	2,236
Gold ..	525,792	1,018,670	1,048,748	66,593	7,326,309	152,291	76,001	10,214,404
Gypsum ..	2,160	2,338	..	80,363	7,569	..	..	92,430
Ironstone ..	2,091	..	1,351	2,170,302	..	..	..	2,173,834
Kaolin ..	18,319	5,144	..	600	..	..	..	24,063
Lead ..	(b)	..	629,253	200	..	134,413	..	763,866
Lead and silver- lead ore, concen- trates, etc. ..	3,815,643	..	..	..	2,228	..	..	3,817,871
Limestone flux ..	22,349	..	12,461	5,108	..	71,243	..	111,161
Magnesite ..	30,070	821	325	143	..	..	..	31,359
Manganese ore ..	243	..	..	..	..	..	..	243
Molybdenite ..	21	..	3,353	..	..	..	..	3,374
Opal ..	6,110	..	150	9,363	..	..	..	15,623
Osmiridium ..	..	..	..	..	..	3,862	..	3,862
Phosphate ..	131	..	..	..	..	..	..	131
Pigments ..	934	..	..	124	..	..	..	1,058
Platinum ..	410	..	..	..	..	..	..	410
Salt ..	..	(f)	..	149,234	..	..	..	(g) 149,234
Shale (oil) ..	..	..	..	..	..	..	..	..
Silver ..	(b) 5,142	525	260,848	157	11,773	81,036	..	(g) 368,481
Tin and tin ore ..	268,454	14,750	157,889	..	6,882	206,056	4,176	658,807
Wolfram ..	560	..	1,889	..	28,323	8,748	..	39,520
Zinc and concen- trates ..	198,460	..	453,356	..	..	283,105	..	934,921
Unenumerated ..	(c) 47,839	711	2,759	5,379	19,092	14,038	(e) 7,805	97,623
Total ..	10,136,789	1,623,003	3,613,511	2,513,359	7,771,454	1,624,036	98,601	27,380,753

(a) For items excluded see letterpress below.

(b) See letterpress above preceding table.

(c) Includes dolomite £9,799, silica £15,249, breccia £11,870, and zinc-antimony-fluorite £1,503.

(d) Year ended 30th June.

(e) Mica.

(f) Not for publication.

(g) Incomplete.

It may be pointed out in connexion with the figures given in the above table that the totals are exclusive of certain commodities, such as stone for building and industrial uses, sand, gravel, brick and pottery clays, lime, cement and slates, which might be included under the generic term "mineral." Valuations of the production of some of these may be obtained from the reports of the various Mines Departments, but in regard to others it is impossible to obtain adequate information. In certain instances, moreover, the published information is of little value. Some of the items excluded, such as cement, carbide and sulphuric acid, are included in manufacturing production, and, in any case, only the raw material could properly be included in mineral production. The items excluded from the total for New South Wales in 1936 consisted of—lime, £70,439, building stone, £115,162; Portland cement, £986,331; coke, £800,632; road material and gravel, £963,566; shell grit, £10,777; sulphur and sulphuric acid, £52,880; and brick and pottery clays, £271,220. Carbide, £137,100, and cement, £210,489, have been excluded from the Tasmanian figures.

4. Value of Production, 1932 to 1936.—The values of the minerals produced in the various States for the years 1932 to 1936 are given in the table hereunder:—

MINERAL PRODUCTION.—VALUE.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Australia
	£	£	£	£	£	£	£	£
1932 ..	6,533,191	908,994	1,818,701	837,896	4,731,740	739,058	13,811	15,583,391
1933 ..	6,964,834	1,060,437	2,373,251	1,076,434	5,269,194	845,668	18,150	17,607,968
1934 ..	7,766,504	1,092,029	2,713,135	1,713,537	5,884,430	750,389	28,806	19,948,830
1935 ..	9,210,820	1,394,253	2,887,440	2,498,617	6,107,990	1,071,507	76,900	23,247,527
1936 ..	10,136,789	1,623,003	3,613,511	2,513,359	7,771,454	1,624,036	98,601	27,380,753

The value of the mineral production in 1936 exceeded that of 1935 by more than £4,100,000. All of the States recorded increases in values, mainly through the agency of gold, zinc and concentrates, silver-lead ores and concentrates, lead, coal and copper. Of these gold was the most important: the production increased by 200,250 fine oz., which, at its enhanced price, accounted for nearly £2,200,000 of the increase mentioned above.

Zinc and concentrates followed gold in the order of increase during 1936, the value of production rising by £635,000 mainly owing to increases in Queensland and Tasmania. In the latter State production was resumed in 1936 after a lapse of five years.

The production of silver-lead ores and concentrates in New South Wales increased by 12,181 tons, and as the price rose also by nearly £2 per ton the value of output exceeded that of 1935 by £634,000.

The quantities of lead and copper were also greater in 1936 and were likewise accompanied by increases in values.

Coal also increased in quantity, but no variation in price was recorded.

Particulars of the variations in production, etc., by States, will be found in greater detail in the various sections hereinafter.

5. Total Production to end of 1936.—In the next table will be found the estimated value of the total mineral production in each State up to the end of 1936. The items mentioned as excluded from the preceding table are also omitted in the following table.

Thus the total for New South Wales falls short by £58,000,000 of that published by the State Department of Mines, the principal items excluded being coke, £17,700,000; cement, £22,619,000; lime, £1,884,000; and considerable values for marble, slate, granite, chert, gravels, etc., which the Department now includes in the returns for quarries.

MINERAL PRODUCTION.—VALUE TO END OF 1936.

Minerals.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter. (a)	Australia.
	£	£	£	£	£	£	£	Million. £
Gold ..	65,741,723	307,045,073	89,821,437	1,920,368	196,221,350	9,383,787	2,423,535	673
Silver and lead ..	133,643,442	267,112	8,287,586	383,904	2,328,363	9,349,591	66,324	155
Copper ..	15,760,645	216,686	27,330,574	33,193,613	1,810,057	22,893,160	235,474	101
Iron ..	7,753,690	15,641	503,590	16,520,167	36,722	91,193	..	25
Tin ..	15,799,472	1,011,967	11,869,541	..	1,634,547	18,294,551	651,475	49
Wolfram ..	290,647	11,885	1,076,314	301	1,441	328,731	244,721	2
Zinc ..	25,469,368	..	535,679	15,993	5,437	1,279,182	..	27
Coal ..	217,428,620	16,592,046	23,984,657	..	8,427,208	2,387,722	..	269
Other ..	8,723,901	924,623	2,898,560	5,727,140	568,815	2,373,453	116,211	21
Total ..	490,611,508	326,085,033	166,307,938	57,761,486	211,033,940	66,581,370	3,737,740	1,322

(a) To 30th June, 1936.

The "other" minerals in New South Wales include alunite, £211,000; antimony, £370,000; arsenic, £194,000; bismuth, £245,000; chrome, £132,000; diamonds, £147,000; magnesite, £306,000; molybdenite, £215,000; opal, £1,619,000; scheelite, £106,000; and oil shale, £2,695,000. In the Victorian returns antimony ore was responsible for £614,000. The value for coal in this State includes £3,032,000 for brown coal. Included in "other" in the Queensland production were opal, £188,000; gems, £642,000; bismuth £138,000; cobalt, £158,000; molybdenite, £606,000; limestone flux, £803,000; and arsenic, £124,000. The chief items in South Australian "other" minerals were salt, £3,658,000; limestone flux, £311,000; gypsum, £1,055,000; phosphate, £135,000; and opal, £148,000. In the Tasmanian returns osmiridium was responsible for £614,000, scheelite for £112,000, and iron pyrites for £167,000.

6. Quarries.—Hitherto the data published in the Official Year Book relating to the mineral industry has contained no reference to quarrying. At the Conference of Australian Statisticians held in March, 1935, it was resolved that the values of quarry products should be included with mining. Steps are now being taken to give effect to this resolution, but some time must elapse before material can be collected in all States.

7. Geophysical Methods for Detection of Ore Deposits. —Reference to the application of geophysical survey methods in Australia will be found in Official Year Book No. 24, p. 570. See also § 16 hereinafter.

§ 2. Gold.

1. Discovery in Various States.—The discovery of gold in payable quantities was an epoch-making event in Australian history, for, as one writer aptly phrases it, this event "precipitated Australia into nationhood." A more or less detailed account of the finding of gold in the various States appears under this section in Official Year Books Nos. 1 to 4.

2. **Production at Various Periods.**—In the following table will be found the values of the gold raised in the several States and in Australia as a whole during each of the eight decennial periods from 1851 to 1930, and in single years from 1925 to 1936. Owing to the defective information in the earlier years the figures fall considerably short of the actual totals, for during the first stages of mining development large quantities of gold were taken out of Australia by successful diggers who preferred to keep the amount of their wealth secret.

GOLD.—VALUE OF PRODUCTION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Australia.
	£	£	£	£	£	£	£	£
1851-60..	11,530,583	93,337,052	14,565	..	..	788,564	..	105,670,764
1861-70..	13,676,103	65,106,264	2,076,494	..	..	12,174	..	80,871,035
1871-80..	8,576,654	40,625,188	10,733,048	579,068	..	700,048	79,022	61,293,028
1881-90..	4,306,541	28,413,792	13,843,081	246,668	178,173	1,514,921	713,345	49,216,821
1891-1900	10,332,120	29,904,152	23,989,359	219,931	22,368,524	2,358,336	906,988	89,999,410
1901-10..	9,569,492	30,136,686	23,412,395	310,080	75,540,415	2,566,170	473,871	142,009,109
1911-20..	4,988,377	13,354,217	9,876,677	238,808	46,808,351	873,302	100,652	76,240,384
1921-30..	940,946	2,721,309	1,976,715	47,564	20,462,957	193,833	9,894	26,353,218
1926 ..	82,551	208,471	43,914	3,219	1,857,716	17,936	594	2,214,401
1927 ..	76,595	163,699	161,321	1,776	1,734,571	20,646	468	2,159,076
1928 ..	54,503	144,068	56,395	2,258	1,671,093	15,306	431	1,944,054
1929 ..	31,842	111,609	40,250	4,289	1,602,142	23,772	553	1,814,457
1930 ..	53,066	102,456	33,224	5,569	1,773,500	18,076	57	1,986,848
1931 ..	118,623	262,488	79,652	17,328	3,054,743	28,150	2,535	3,563,519
1932 ..	203,622	351,586	173,144	22,018	4,413,809	43,137	4,196	5,211,512
1933 ..	226,068	448,228	710,168	40,619	4,915,950	51,579	4,449	6,406,061
1934 ..	307,662	597,040	982,636	58,582	5,534,491	48,139	8,124	7,536,674
1935 ..	439,140	768,401	904,755	64,109	5,677,328	73,143	44,458	7,971,334
1936 ..	525,792	1,018,670	1,048,748	66,593	7,326,300	152,291	76,001	10,214,404
1937 ..	595,855	1,266,507	1,104,760	60,372	8,688,921	176,130	91,543	11,984,086
Total—								
1851-1937	66,337,817	308,311,580	90,926,203	1,980,201	204,910,271	9,559,825	2,515,078	684,540,975

The values quoted on this page are in Australian currency throughout.

Owing to the exhaustion of the more easily worked deposits and the unprofitableness of gold-mining during the era of high prices following the Great War, the production of gold in Australia declined from 3,838,020 ozs. in 1903 to 427,150 ozs. in 1920, the lowest output since the discovery of the precious metal.

Increased activity in prospecting due to prevailing economic conditions resulted in some improvement in 1930, but the marked development since that year received its impetus from the heavy depreciation of Australian currency in terms of gold. Oversea and local capital has been attracted to the industry, and the employment of advanced geological methods and technical improvements have brought many difficult or extinct propositions into profit. The output of gold rose from 466,593 ozs. in 1930 to 1,381,135 ozs. in 1937, and further increases are forecast as new units are approaching production and many existing ones are being extensively developed. Values in Australian currency assigned to the production of gold during recent years in the above table are £5 10s. 9d. in 1931, £7 5s. 11½d. in 1932, £7 14s. 3½d. in 1933, £8 10s. 0½d. in 1934, £8 15s. 1½d. in 1935, £8 13s. 2d. in 1936 and £8 13s. 8d. in 1937. Monthly fluctuations in the price of gold in London and in Australia are shown in Chapter XXVII "Public Finance." Reference to the bounty paid by the Commonwealth Government on local production will be found in §16 par. 1 hereinafter.

The amount of gold raised in Australia in any one year attained its maximum in 1903, in which year Western Australia also reached its highest point. For the other States the years in which the greatest yields were obtained were as follows:—New South Wales, 1852; Victoria, 1856; Queensland, 1900; South Australia, 1804; and Tasmania, 1899.

The following table shows the quantities of gold raised in the various States and in Australia during each of the five years ending 1937. A separate line is added showing the total production in thousands of fine ounces from 1851 to 1937:—

GOLD.—QUANTITY PRODUCED.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Ter. (a)	Australia.
	Fine ozs.	Fine ozs.	Fine ozs.	Fine ozs.	Fine ozs.	Fine ozs.	Fine ozs.	Fine ozs.
1932 ..	27,941	47,745	23,263	3,014	605,561	5,937	674	714,135
1933 ..	29,252	58,183	91,997	6,361	637,207	6,073	594	830,267
1934 ..	36,123	70,196	115,471	6,870	651,338	5,622	989	886,609
1935 ..	50,102	87,609	102,990	7,333	649,049	8,343	5,066	910,492
1936 ..	60,739	117,509	121,114	7,981	810,208	17,000	8,753	1,179,751
1937 ..	68,607	145,799	127,281	6,962	1,000,647	20,276	10,521	1,380,093
Total (b)								
1851-1937	15,294	71,920	20,730	425	43,206	2,179	564	154,318

(a) Year ended 30th June.

(b) '000 omitted in each case.

3. *Changes in Relative Positions of States as Gold Producers.*—The figures in the table showing the value of gold raised explain the enormous increase in the population of Victoria during the period 1851 to 1861, when an average of over 40,000 persons reached the Colony each year. With the exception of the year 1889, when its output was exceeded by that of Queensland, Victoria maintained its position as the chief gold-producer for a period of forty-seven years, until its production was surpassed by that of Western Australia in 1898. From that year onward Western Australia contributed practically half, and so far as the last ten years are concerned nearly four-fifths, of the entire yield of Australia.

4. *Place of Australia in the World's Gold Production.*—The table given below shows the world's gold production, and the share of Australia therein in decennial periods since 1851 and during each of the last seven years for which returns are available. The figures given in the table have been compiled from the best authoritative sources of information.

GOLD.—WORLD'S PRODUCTION.

Period.	World's Production of Gold.	Gold Produced in Australia	Percentage of Australia on Total.
	Fine ozs.	Fine ozs.	%
1851-60	61,352,295	24,877,013	40.55
1861-70	53,675,679	19,038,661	35.47
1871-80	50,473,314	14,429,599	28.59
1881-90	51,998,060	11,586,626	22.28
1891-1900	102,695,748	21,187,661	20.63
1901-10	182,891,525	33,434,069	18.28
1911-20	206,114,773	17,426,466	8.45
1921-30	186,091,278	5,841,902	3.14
1930	20,832,783	467,742	2.25
1931	22,786,773	595,123	2.61
1932	24,204,275	714,135	2.95
1933	25,568,779	830,267	3.25
1934	27,063,639	886,609	3.28
1935	29,447,353	910,492	3.00
1936	32,922,013	1,179,751	3.58

For the year 1936 the world's production of gold in fine ounces was 32,922,000, as compared with a return of 29,447,000 fine ounces in 1935. It is estimated that the world's production in 1937 approximated 37,688,543 fine ounces, of which Australia's share amounted to 1,380,093 fine ounces or 3.66 per cent.

The quantities of gold produced in the ten chief producing countries in each of the five years 1932 to 1936 are given in the table hereunder. Particulars of the quantities and values of the gold production for all countries for the ten years 1927-36 will be found in the *Australian Production Bulletin* No. 31 Part II., Primary Industries and Total Recorded Production, issued by this Bureau.

GOLD.—PRODUCTION, CHIEF COUNTRIES.

Country.	1932.	1933.	1934.	1935.	1936.
	Fine ozs.	Fine ozs.	Fine ozs.	Fine ozs.	Fine ozs.
Union of South Africa	11,558,532	11,013,712	10,479,857	10,773,991	11,336,214
Soviet Union	1,990,000	2,814,000	3,700,000	4,500,000	5,500,000
Canada	3,044,387	2,948,309	2,972,074	3,284,800	3,748,028
United States	2,210,198	2,276,682	2,742,161	3,163,166	3,713,187
Australia	714,135	830,267	886,609	910,492	1,179,751
Rhodesia	580,484	645,087	693,265	727,928	801,513
Mexico	584,198	637,727	662,000	682,319	753,950
Japan	462,251	502,875	531,371	673,475	742,135
India	329,600	336,100	322,100	327,600	333,300
Gold Coast	278,782	305,908	326,040	358,835	428,144

The next table shows the average yearly production in order of importance of the yield in the chief gold-producing countries for the decennium of 1927-1936:—

GOLD.—AVERAGE ANNUAL PRODUCTION, CHIEF COUNTRIES, 1927 TO 1936.

Country.	Quantity.	Country.	Quantity.
	Fine ozs.		Fine ozs.
Union of South Africa	10,764,552	Mexico	668,930
Canada	2,646,633	Rhodesia	626,326
Soviet Union	2,489,957	Japan	469,230
United States	2,474,663	India	343,249
Australia	698,146	Gold Coast	275,668

5. **Employment in Gold Mining.**—The number of persons engaged in gold mining in each State at various intervals since 1901 is shown in the following table. The figures are inclusive of prospectors, etc., so far as they are ascertainable and include those who may not have worked during the whole of the year.

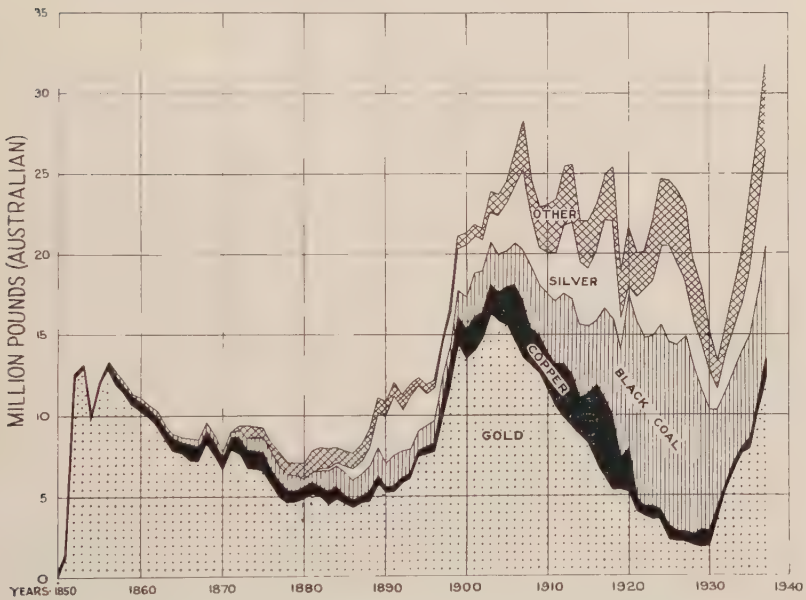
GOLD MINING.—PERSONS EMPLOYED.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Total.
	No.	No.	No.	No.	No.	No.	No.	No.
1901	12,004	27,887	9,138	(a) 11,000	19,771	1,112	(a) 200	70,972
1903 (b)	11,247	25,208	9,229	(a) 11,000	20,716	973	(a) 200	68,573
1913	3,570	11,931	3,123	800	13,445	481	175	33,525
1923	1,141	2,982	603	32	5,555	119	30	10,462
1930	4,220	942	903	114	1,452	43	4	10,687
1931	9,944	4,258	2,751	180	6,344	166	70	23,713
1932	8,154	6,089	3,893	142	7,983	250	89	26,600
1933	6,913	6,126	4,161	231	9,900	229	95	27,655
1934	7,080	6,943	3,867	804	12,523	275	115	31,607
1935	6,652	6,060	3,931	243	14,708	210	403	33,113
1936	5,204	6,959	3,983	283	15,696	230	372	32,727

(a) Estimated.

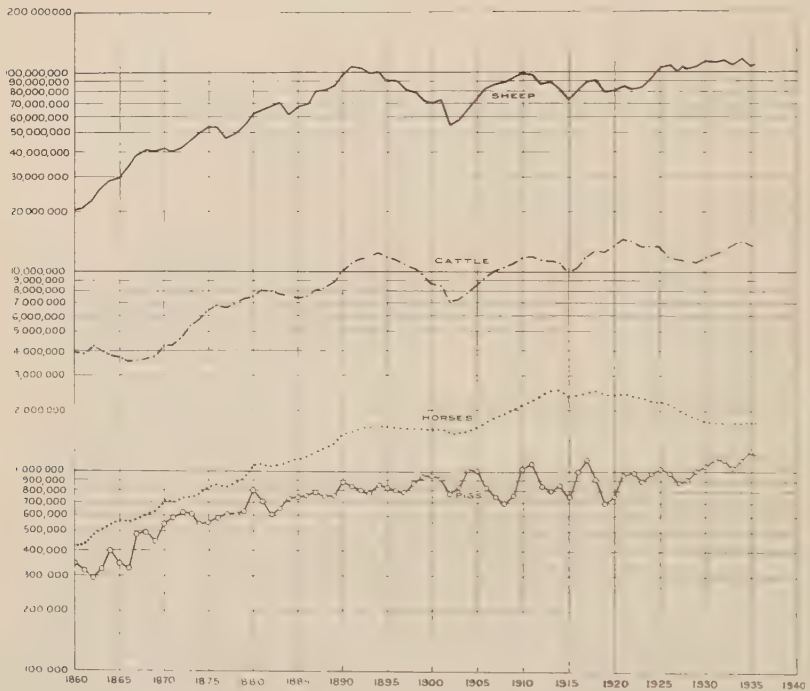
(b) Year of Maximum Production.

VALUE OF PRINCIPAL MINERALS PRODUCED—AUSTRALIA, 1850 TO 1937.



EXPLANATION.—The upper curve represents the total value of mineral production while the vertical distances between the curves represent the value of production of each mineral.

LIVESTOCK—AUSTRALIA, 1860 TO 1935.



(See page 646.)

EXPLANATION.—This is a ratio graph, the vertical scale being logarithmic and the curves rise and fall according to the rate of increase or decrease. Actual numbers are indicated by the scale at the side of the graph.

Owing to causes referred to earlier in this section, the number employed in gold-mining had dwindled to the comparatively small figure of 6,108 in 1929. Stimulated by the enhanced price of gold in recent years a revival has occurred in the industry and employment therein has increased more than five-fold since 1929. In 1936, however, the number declined for the first time since 1929.

6. **Bounty on Production.**—A reference to the bounty provided by the Commonwealth on gold production in Australia will be found in § 16 par. 1 hereinafter.

§ 3. Platinum and Platinoid Metals.

1. **Platinum.**—(i) *New South Wales.* The deposits at present worked in the State are situated in the Fifield division, near Parkeg, and the production in 1936 amounted to 47 ozs., valued at £410 as compared with 98 ozs., valued at £649 in the preceding year, while the total production recorded to the end of 1936 amounted to 20,140 ozs., valued at £128,037.

(ii) *Victoria.* In Gippsland the metal has been found in association with copper and 127 ozs. were produced in 1913, but there was no production in recent years.

(iii) *Queensland.* Platinum, associated with osmiridium, has been found in the beach sands between Southport and Currumbin, in creeks on the Russell gold-field near Innisfail, and in alluvial deposits on the Gympie gold-field, but no production has been recorded.

2. **Osmium, Iridium, etc.**—(i) *New South Wales.* Small quantities of osmium, iridium and rhodium are found in various localities. Platinum, associated with iridium and osmium, has been found in the washings from the Aberfoil River, about 15 miles from Oban; on the beach sands of the northern coast; in the gem sand at Bingara, Mudgee, Bathurst and other places. In some cases, as for example in the beach sands of Ballina, the osmiridium and other platinoid metals amount to as much as 40 per cent. of the platinum, or about 28 per cent. of the whole metallic content.

(ii) *Victoria.* In Victoria, iridosmine has been found near Foster, and at Waratah Range, South Gippsland.

(iii) *Tasmania.* The yield of osmiridium was returned as 281 ozs. in 1936 valued at £3,862 compared with the record production of 3,365 ozs. in 1925 valued at £103,570. The decrease in later years was largely due to the decline in price from £31 in 1925 to £12 10s. per oz. in 1936, but the depletion of the known alluvial deposits was also a factor.

§ 4. Silver, Lead and Zinc.*

1. **Occurrence in Each State.**—Particulars regarding the occurrence of silver and associated metals in each State were given in Official Year Books, Nos. 1 to 5.

2. **Production.**—(i) *General.* The values of the production of silver, silver-lead ore and lead from the various States during the five years ending 1936 are given hereunder:—

SILVER AND LEAD.—PRODUCTION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter. (a)	Australia.
	£	£	£	£	£	£	£	£
1932 ..	1,566,912	208	756,546	..	5,716	69,941	..	2,399,323
1933 ..	1,783,207	198	708,804	..	6,860	70,795	410	2,570,274
1934 ..	2,199,823	370	671,255	..	7,199	43,850	11	2,922,508
1935 ..	3,189,388	642	755,899	..	12,687	63,713	..	4,022,320
1936 ..	3,820,785	525	899,101	357	14,001	215,449	..	4,950,218

(a) Year ended 30th June.

* Further details in regard to zinc are given in § 7 hereinafter.

(ii) *New South Wales.* The figures quoted above for New South Wales for the year 1936 include silver to the value of £5,142 and silver-lead ore and concentrates valued at £3,815,643. Since the Sulphide Corporation Ltd. ceased smelting operations in 1922 the silver (metal) is obtained chiefly in the refining of gold and copper ores, and there has been no production of lead (pig) in the State. It may be noted here that the bulk of the carbonate and siliceous ore from the Broken Hill field is sent for treatment to Port Pirie in South Australia, while the remainder of the ore is concentrated on the field and then dispatched to Port Pirie for refining. The output for 1936 showed an increase both in quantity and value over that of the previous year and was due to the improvement in the prices of silver and lead.

It must be understood that the totals for New South Wales in the above table represent the net value of the product (excluding zinc) of the silver-lead mines of the State. In explanation of the values thus given, it may be noted that, as previously mentioned, the metallic contents of the larger portion of the output from the silver-lead mines in the State are extracted outside New South Wales, and the Mines Department considers, therefore, that the State should not take full credit for the finished product. The real importance of the State as a producer of silver, lead and zinc is thus to some extent overlooked. The next table, however, which indicates the quantities of these materials locally produced, and the contents by assay of concentrates exported during the year 1903, 1913, 1923 and for each of the last five years, will show, as regards New South Wales, the estimated total production and the value of the metal contents of all ore mined :—

SILVER-LEAD MINES.—NEW SOUTH WALES, TOTAL PRODUCTION.

Year.	Metal Produced within Australia.				Contents of Concentrates Exported.			
	Silver.	Lead.	Zinc.	Value.	Silver.	Lead.	Zinc.	Value.
	oz. fine.	tons.	tons.	£	oz. fine.	tons.	tons.	£
1903 ..	6,489,689	92,293	286	1,799,929	1,736,512	29,706	14,625	308,711
1913 ..	5,008,638	106,132	4,121	2,700,867	8,506,251	117,993	184,149	3,759,091
1923 ..	7,233,236	124,570	41,153	5,707,739	4,834,718	40,906	149,319	1,813,287
1932 ..	5,896,193	131,422	52,200	3,001,005	178,034	1,222	30,164	124,710
1933 ..	7,430,179	158,175	53,956	3,579,880	790,712	18,344	93,849	475,101
1934 ..	7,380,624	153,641	54,629	3,384,193	826,896	22,142	34,016	345,350
1935 ..	8,422,316	180,958	67,666	4,933,492	660,630	11,947	72,285	424,929
1936 ..	7,778,514	157,755	57,744	4,608,888	779,289	18,569	68,011	549,319

The figures given above are quoted on the authority of the Mines Department of New South Wales. Accurate details in regard to gold, copper, antimony, cadmium and cobalt contained in the silver-lead ores are not available. Cadmium was first extracted in 1922 at Risdon, in Tasmania, and in 1936 the amount won from ores of New South Wales origin was given as 214 tons, valued at £50,078. As pointed out previously, credit for the value is not taken in the New South Wales returns, the value accruing to the State being taken as that of the declared value of the concentrates at the time of their dispatch.

(a) *Broken Hill.* Broken Hill, in New South Wales, is the chief centre of silver production in Australia. A description of the silver-bearing area in this district is given in earlier issues of the Official Year Book. (See No. 4, page 506.)

Although the returns are not complete in all cases, the following table relating to the companies controlling the principal mines at Broken Hill will give some idea of the richness of the field :—

SILVER.—BROKEN HILL RETURNS TO END OF 1936.

Mine.	Value of Output to end of 1936.	Dividends and Bonuses Paid to end of 1936.
	£	£
Broken Hill Proprietary Co. Ltd.	53,524,883	15,251,833
Broken Hill Proprietary Block 14 Co. Ltd.	4,750,508	670,100
British-Australian Broken Hill Co. Ltd.	5,858,998	821,280
Broken Hill Proprietary Block 10 Co. Ltd.	4,946,989	1,432,500
Sulphide Corporation Ltd. (Central and Junction Mines)	28,239,105	3,635,625
Broken Hill South Ltd.	26,174,159	6,375,000
North Broken Hill Ltd.	22,291,194	6,760,190
Broken Hill Junction Lead Mining Co.	1,185,058	87,500
Junction North Broken Hill Mine	3,511,940	171,431
The Zinc Corporation Ltd.	12,828,021	4,092,248
Barrier South Ltd.	151,517	50,000
Total	163,462,372	39,347,767

The returns relating to dividends and bonuses paid are exclusive of £1,744,000, representing the nominal value of shares in Block 14, British, and Block 10 companies, allotted to shareholders of Broken Hill Proprietary Company. If the output of the companies which were, prior to 1936, engaged in treating the tailings, etc., be taken into consideration, the totals for output and dividends shown in the table would be increased to about £170.7 millions and £42.4 millions respectively. The authorized capital of the various companies amounted to £11,415,000. In 1936 the dividends and bonuses paid amounted to £1,978,667 shared in by the Companies controlling the principal mines as follows: Zinc Corporation, £251,375; North Broken Hill, £560,000; Broken Hill South, £500,000; Broken Hill Proprietary, £513,542, and Sulphide Corporation, £153,750.

(b) *Other Areas.* Silver is found in various other localities in New South Wales, but the production therefrom in 1936 was unimportant: operations were either suspended or restricted to developmental work and prospecting.

(iii) *Victoria.* The silver produced in 1936 amounted to 7,964 oz., valued at £525, and was obtained in the refining of gold at the Melbourne Mint.

(iv) *Queensland.* The production of silver increased by nearly 700,000 fine oz. to about 3.1 million fine oz., and lead increased by 2,811 tons to 35,763 tons practically all of which was won from the mine and works at Mount Isa.

(v) *South Australia.* Silver ore has been discovered at Miltalie and Poonana, in the Franklin Harbour district, also at Mount Malvern and Olivaster, near Rapid Bay, and in the vicinity of Blinman and Farina, at Baratta, and elsewhere. There has been no production in recent years until 1936, when 1,560 fine oz. of silver valued at £157 was produced. In addition 10 tons of lead were mined for a value of £200.

(vi) *Western Australia.* The quantity of silver obtained as a by-product and exported in 1936 was 105,219 oz., valued at £11,773.

(vii) *Tasmania.* The silver produced in 1936 amounted to 906,458 oz., valued at £81,036, and the lead to 7,563 tons, valued at £134,413. This represents a very great increase on that of the previous year. About 803,000 oz. of the total silver output were contained in silver-lead, while 103,000 oz. were contained in the blister copper produced by the Mount Lyell Co.

(viii) *Northern Territory.* A rich deposit of silver-lead and copper ore was located in 1930 at the Jervois Range about 200 miles east of Alice Springs. Development is hindered, however, by transport difficulties and lack of permanent water. Rich sulphides have been found at Barrow Creek. There was no record of production in 1931, 1932, 1935 and 1936. In 1933, 24 tons of silver-lead ores valued at £410 were raised whilst the production amounted to 8 tons valued at £111 in 1934.

3. **Production of Silver in Australia.**—The following table sets out as fully as possible the total production of silver in Australia. It is based on the data published by the Australian Mines and Metals Association and shows the quantities of refined silver recovered by smelters and mints and the estimated metallic contents of ores and concentrates exported :—

SILVER.—PRODUCTION IN AUSTRALIA.

Particulars.	1914.	1924.	1934.	1936.	1937.
	fine ozs.	fine ozs.	fine ozs.	fine ozs.	fine ozs.
Metal recovered by—					
Smelters	4,020,904	7,529,845	8,583,133	8,360,673	9,279,983
Mints	226,019	101,368	91,416	138,001	230,526
Metallie contents in ores and concentrates exported ..	8,901,212	2,242,170	2,579,082	3,477,416	4,267,571
Total Production ..	13,148,135	9,873,383	11,253,631	11,976,090	13,778,080

4. **World's Production.**—The world's production of silver during the last five years for which particulars are available is estimated to have been as follows :—

SILVER.—WORLD'S PRODUCTION.

Total.	1932.	1933.	1934.	1935.	1936.
World's production in 1,000 fine ozs. ..	171,000	172,000	193,000	223,000	247,000

The world's production of silver in millions of fine ounces during the years 1916, 1926 and 1936 amounted respectively to 180, 254 and 217, of which Australia contributed 9.9 million, 10.3 million and 13.8 million fine ounces, or 5.5 per cent., 4.1 per cent. and 5.6 per cent. respectively. The production for Australia includes an estimate of the silver contents of the ores, bullion and concentrates exported.

Arranged in order of importance the estimated yields in 1936 from the chief silver producing countries were as follows :—

SILVER.—PRODUCTION, CHIEF COUNTRIES, 1936.

Country.	Production.	Country.	Production.
	Fine ozs. (^{000 omitted.})		Fine ozs. (^{000 omitted.})
Mexico	77,462	Germany	(a) 6,751
United States	60,721	India	5,977
Peru	19,000	Soviet Union	5,000
Canada	18,334	Belgian Congo	2,782
Australia	11,976	Yugoslavia	1,786
Bolivia	10,723	Spain and Portugal	(a) 1,450
Japan	9,605	Union of South Africa	1,076

(a) Figures quoted are for 1935.

5. **Prices of Silver, Lead and Zinc.**—In view of the close association in Australia, particularly in New South Wales, of ores containing these metals, the average prices of each metal during the last five years have been incorporated in the table hereunder :

PRICES OF SILVER, LEAD AND SPELTER.

Metal.	1933.			1934.			1935.			1936.			1937.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
Silver (Standard)															
per oz.	0	1	0.14	0	1	9.22	0	2	4.95	0	1	8.06	0	1	8.07
Lead .. per ton	11	16	4	11	1	0	14	5	7	17	13	4	23	4	3
Spelter per ton	15	14	10	13	15	6	14	3	6	15	0	9	22	5	9

A marked recovery in the prices of lead and spelter occurred between November, 1936, and March, 1937, when the price of lead rose from £22 to £33 per ton and that of spelter from £16 to more than £33 per ton. Prices receded after that month and by December, 1937, were quoted at £16 and £15 per ton respectively. By June, 1938, these prices had declined further to £14 and £13. Silver at that date remained about 18. 7d. per oz.

6. **Employment in Silver, Lead and Zinc Mining.**—The average number of persons employed in mining for these metals during each of the last five years is given below :—

SILVER, ETC., MINING.—PERSONS EMPLOYED.

Year.	N.S.W. (a)	Q'land.	S. Aust.	W. Aust. (b)	Tasmania. (a)	Nor. Ter.	Australia.
	No.	No.	No.	No.	No.	No.	No.
1932 ..	3,145	443	I	16	932	I	4,538
1933 ..	3,197	553	..	10	962	..	4,722
1934 ..	3,237	523	..	4	958	I	4,723
1935 ..	3,536	544	..	..	1,046	..	5,126
1936 ..	4,163	601	3	32	1,386	..	6,185

(a) Silver, lead and zinc.

(b) Principally lead and silver-lead ore.

§ 5. Copper.

1. **Production.**—The production of copper in the various States has been influenced considerably by the ruling prices, which have undergone extraordinary fluctuations. In 1923 when copper was worth £65 18s. 1d. per ton the production of metal amounted to 17,012 tons exclusive of 4,534 tons of ore. During the three years ended 1934 the price averaged little more than £31 per ton and the production dropped to an average of about 13,800 tons. Production responded to an improvement in price during 1935 and 1936, the output in the latter year increasing to 18,882 tons of metal, concentrates and ore. The values of the local production as reported and credited to the mineral industry for the years 1932 to 1936 are shown hereunder. Quantities for Australia as a whole as returned by the several State Mines Departments are appended on separate lines at the foot of the table :—

COPPER.—PRODUCTION.

State.	1932.	1933.	1934.	1935.	1936.
	£	£	£	£	£
New South Wales ..	21,785	26,775	25,398	30,071	53,687
Queensland ..	108,858	105,031	95,903	101,489	161,688
South Australia ..	..	2,928	8,475	11,065	22,609
Western Australia ..	..	1,132	..	..	97
Tasmania ..	399,762	395,286	267,342	464,007	556,734
Northern Territory (a) ..	137	..	..	..	1,871
Australia ..	530,542	531,152	397,118	606,632	796,686
Ingots, Matte, etc. .. tons	14,763	14,493	12,003	16,992	18,069
Ore .. tons	20	..	96	56	(b) 813

(a) Year ended 30th June.

(b) Including 615 tons of Concentrates.

2. **Sources of Production.**—(i) *New South Wales.* The production during 1936 amounted to 758 tons of electrolytic copper and 56 tons of concentrates, the latter being exported overseas. Practically all of the copper was obtained at Port Kembla from the treatment of 1,714 tons of copper matte forwarded by the Broken Hill Smelters and derived from Broken Hill silver-lead ores. Copper mines operated in the State during the year but the outputs were very small. Since 1919 the production in New South Wales has rarely exceeded 1,000 tons, whilst previously it had ranged from 2,500 tons in 1915 to 10,600 tons in 1911.

(ii) *Queensland.* The yield in this State amounted in 1936 to 3,828 tons valued at £161,688, and showed a serious decline as compared with 1920 when nearly 16,000 tons valued at £1,552,000 were raised. The falling-off in the yield in recent years was due primarily to the low prices realized for copper. Returns from the chief producing areas in 1936 were as follows: Cloncurry, 1,862 tons, £78,649; Herberton, 133 tons, £5,611; and Mount Morgan, 1,675 tons, £70,770.

(iii) *South Australia.* Deposits of copper are found over a large portion of South Australia and its total production easily exceeds that of any other State. Compared with the output of previous years the production of South Australia has dwindled during recent times to very small dimensions, and is now exceeded by that of Tasmania and Queensland. A short account of the discovery, etc., of some of the principal mining areas, such as Kapunda, Burra Burra, Wallaroo and Moonta, was given in earlier issues of the Official Year Book. The Moonta and Wallaroo copper field, which was opened in 1860, was worked continuously and up to the close of 1931, £20,500,000 of copper was produced. Since 1933 the field has been worked on a co-operative basis known as the Moonta Mining Scheme which was referred to in previous issues of the Official Year Book. The production of copper in this State in 1936 amounted to 451 tons, valued at £22,609.

(iv) *Western Australia.* Thirty-five tons of copper valued at £1,132 were recovered in this State during 1933, and the only production since that year was 2 tons valued at £97 exported in 1936.

(v) *Tasmania.* The quantity of copper produced in Tasmania during 1936 was 13,040 tons, valued at £556,734, the whole of the production being by the Mount Lyell Mining and Railway Co. Ltd. This Company treated 58,966 tons of ore and concentrates and produced 13,136 tons of blister copper, containing copper, 13,040 tons; silver, 103,189 oz.; and gold, 7,046 oz., the whole being valued at £A773,083.

(vi) *Northern Territory.* Copper has been found at various places, but the development of these deposits is hindered by low prices and the difficulties of transport. For the year ended June, 1936, 198 tons of ore were raised. This was the first production recorded since 1932-33.

3. **Prices.**—The great variation in price that the metal has undergone is shown in the following table, which gives the average prices in London and New York during each of the last five years. The figures are given on the authority of *The Mineral Industry* :—

COPPER.—PRICES, LONDON AND NEW YORK.

Year.				Average London Price per Ton Standard Copper.	Average New York Price in Cents per lb. Electrolytic Copper.
				£	Cents.
1932	..	..	..	31.68	5.56
1933	..	..	..	32.52	7.02
1934	..	..	..	30.28	8.43
1935	..	..	..	31.87	8.65
1936	..	..	..	38.44	9.47

As evidence of the tremendous variation in the price of copper it may be noted that in December, 1916, the average London price of standard copper was £145.32 per ton, while in June, 1927, it was quoted at £54.03. In 1930 the average price was about the same, i.e., £54. During the succeeding five years the price averaged nearly £33 per ton, but by June, 1937, it had risen to more than £60. Following that month prices receded to about £35 in June, 1938, but increased to more than £45 by October, 1938.

4. **World's Production of Copper.**—The world's production of copper during the five years 1932–1936 is estimated to have been as follows. The figures have been taken from the statistical summary prepared by the Imperial Institute.

COPPER.—WORLD'S PRODUCTION.

Year.	1932.	1933.	1934.	1935.	1936.
World's production—tons ..	881,000	1,040,000	1,300,000	1,500,000	1,700,000

The yields from the chief copper-producing countries in 1936 were as follows :—

COPPER.—PRODUCTION, CHIEF COUNTRIES, 1936.

Country.	Production.	Country.	Production.
	Tons.		Tons.
United States	583,285	Germany	58,700
Chile	241,407	Yugoslavia	38,778
Canada	170,676	Peru	32,250
Rhodesia	142,333	Mexico	27,942
Belgian Congo	94,156	Australia	16,083
Soviet Union	82,000	Union of South Africa ..	9,865
Japan	76,505	United Kingdom	9,300

During the five years ending in 1936 the share of the United States in the world's copper production amounted to nearly 25 per cent., while the Australian proportion was only about 1 per cent.

A recovery in the world consumption of copper which commenced in 1935, continued in 1936. This had the effect of reducing stocks to a more reasonable figure and, at the same time, stimulated production particularly in the United States of America.

5. **Employment in Copper Mining.**—The number of persons employed in copper mining during each of the last five years was as follows :—

COPPER MINING.—PERSONS EMPLOYED.

Year.	N.S.W.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Australia.
	No.	No.	No.	No.	No.	No.	No.
1932	(a) 3	278	51	..	1,518	3	1,853
1933	(a) 13	175	54	..	1,483	1	1,726
1934	4	151	45	..	1,471	..	1,671
1935	7	170	54	..	1,758	..	1,989
1936	9	196	54	..	1,610	4	1,873

(a) No production from copper mines.

In 1917 over 9,000 persons were engaged in copper mining.

§ 6. Tin.

1. **Production.**—The price of tin receded somewhat during 1936 and production responded accordingly. The next table shows the values of the production as reported to the Mines Departments in each of the States during the five years 1932 to 1936. A separate line is appended showing the recorded tonnage for Australia during each of the specified years :—

TIN.—PRODUCTION.

State.	1932.	1933.	1934.	1935.	1936.
	£	£	£	£	£
New South Wales	120,124	218,244	328,130	287,890	268,454
Victoria	404	1,350	3,886	14,475	14,750
Queensland	66,174	123,620	179,404	187,234	157,889
Western Australia	3,295	4,557	6,765	8,829	6,882
Tasmania	109,767	190,041	219,246	258,919	206,656
Northern Territory (a) ..	2,322	2,519	9,566	6,036	4,176
Total	302,086	540,331	746,997	763,383	658,807
Tonnage	2,396	3,020	3,323	3,602	3,392

(a) Year ended 30th June.

2. **Sources of Production.**—(i) *New South Wales.* The production in 1936 was estimated at 1,076 tons of ingots valued at £262,661 and 38 tons of concentrates valued at £5,793 were exported to the United Kingdom and Belgium. A large proportion of the output in this State is obtained in normal years by dredging, principally in the New England district, the quantity of stream tin won in 1936 being 421 tons, valued at £67,553. The Tingha area was the principal contributor to the output in 1936 the yield from this district comprising 406 tons of concentrates. Amongst other areas, Emmaville produced 266 tons of concentrates, Ardlethan 223 tons, while the lode mines at Torrington returned an increased yield of 222 tons of concentrates.

(ii) *Victoria.* The production of tin in Victoria is small, being chiefly obtained by dredging in the Beechworth district and by mining in the Toora district in Gippsland. The production in 1936 amounted to 86 tons, valued at £14,750.

(iii) *Queensland.* The chief producing districts in Queensland during 1936 were Herberton, 679 tons, valued at £95,280; Cooktown, 77 tons, £11,501; Stanthorpe, 180 tons, £28,605; Chillagoe, 77 tons, £9,982 and Kangaroo Hills, 91 tons, £11,819. The total production, 1,108 tons, £157,889, showed a decrease on that for 1935, which is far below that of the early years of this century, when the production ranged between 2,000 and 5,000 tons per annum.

(iv) *Western Australia.* The quantity of tin reported in this State in 1936 amounted to 50 tons, valued at £6,882, and was obtained in the Pilbara and Greenbushes fields. The Mines Department carried out a programme of boring during 1936 in the hope of locating payable deep alluvial deposits, but the results were discouraging. Towards the close of the year, however, increased activity in the field was noted.

(v) *Tasmania.* For 1936, the output amounted to 1,004 tons of tin, valued at £206,656, a decrease of 127 tons in quantity and £52,263 in value over the return for the previous year. Operations at Mount Bischoff, the principal producer, were mainly carried on by the tributers. The development of the tin deposits received considerable attention during 1936 and although there was a reduction in output in 1936, there is every prospect that a substantial increase will take place in 1937. By this time a number of mines will be in full production.

(vi) *Northern Territory.* The production for the year amounted to 30 tons of concentrates valued at £4,176. Twenty-two tons were produced on the Maranboy field and the balance was made up of small parcels from various other localities.

3. **World's Production.**—The world's production of tin during each of the last five years was as follows:—

TIN.—WORLD'S PRODUCTION.

1932.	1933.	1934.	1935.	1936.
Tons. 96,100	Tons. 89,000	Tons. 117,000	Tons. 139,000	Tons. 178,000

The world production of tin showed a considerable increase in 1936 and is due principally to the increased output of the chief producing countries—Malaya, Bolivia, Netherlands East Indies, Siam and Nigeria. These countries produced more than three-quarters of the world's total production in 1936. A further extension of the agreement to control production and export of tin has been effected by these countries for a period ending in 1941. There has been no concerted restriction of production in Australia.

The yields from the chief producing countries in 1936 were as follows:—

TIN.—PRODUCTION, CHIEF COUNTRIES, 1936.

Country.	Production.	Country.	Production.
	Tons.		Tons.
Malaya	66,698	Belgian Congo	7,303
Netherlands East Indies	30,769	India	4,547
Bolivia	24,091	Australia	2,963
Siam	12,526	Great Britain	2,099
China	10,400	Indo-China	1,381
Nigeria	9,739	Union of South Africa	634

Australia's share of the world's tin production, estimated at 178,000 tons in 1936, would appear to be a little less than 2 per cent.

4. **Prices.**—The average prices of the metal in the London market for the years 1932 to 1937 were as follows:—

TIN.—PRICES, LONDON.

Year.	Average Price Per Ton.	Year.	Average Price Per Ton.
	£ s. d.		£ s. d.
1932	135 18 10	1935	225 14 5
1933	194 11 11	1936	204 12 8
1934	230 7 5	1937	242 6 7

The price of tin exceeded £204 per ton in 1936 compared with £118 in 1931—the peak depression year—and £230 in 1934. The price rose to an average of £242 in 1937, but had receded to £177 12s. in June, 1938.

5. **Employment in Tin Mining.**—The number of persons employed in tin mining during the last five years is shown below :—

TIN MINING.—PERSONS EMPLOYED.

Year.	N.S.W.	Victoria. (a)	Q'land.	W. Aust.	Tas.	Nor. Ter.	Australia.
	No.	No.	No.	No.	No.	No.	No.
1932	1,201	27	597	41	870	27	2,763
1933	1,448	..	818	63	1,007	33	3,369
1934	1,903	10	1,214	73	1,247	120	4,567
1935	1,807	5	1,122	58	1,452	30	4,474
1936	1,762	6	1,270	48	1,284	37	4,407

(a) The tin produced in Victoria was raised by a dredging company operating primarily for gold.

§ 7. Zinc.

1. **Production.**—(i) *New South Wales.* (a) *Values Assigned.* The production of zinciferous concentrates is confined chiefly to the Broken Hill district of New South Wales, where zincblende forms one of the chief constituents in the enormous deposits of sulphide ores. During the earlier years of mining activity on this field a considerable amount of zinc was left in tailings, but from 1900 onwards improved methods of treatment resulted in the profitable extraction of the zinc contents of the accumulations at the various mines.

As the metallic contents of the bulk of the concentrates, etc., produced in the Broken Hill district are extracted outside New South Wales, the mineral industry of that State is not credited by the Mines Department with the value of the finished product. During 1936 the zinc concentrates produced amounted to 220,767 tons, valued at £198,460. Portion of the zinc concentrates produced is treated at Risdon in Tasmania, and the balance is exported overseas.

The re-opening of the mine at Captain's Flat by the Lake George Mines Ltd. was an important development in 1937. Production is expected to commence early in 1939 and an increase of 20,000 tons in the annual output for Australia is forecast.

(b) *Local and Foreign Extraction.* A statement of the quantity of zinc extracted in Australia and the estimated zinc contents of concentrates exported overseas during the five years 1932 to 1936 will be found in § 17 hereinafter.

(ii) *Queensland.* The production of zinc in the Cloncurry district of Queensland during 1936 was 30,443 tons valued at £453,356, compared with 4,411 tons valued at £68,863 obtained in 1935. The metal was produced by the Mount Isa Mines Ltd.

(iii) *South Australia.* Zinc is known to exist in various localities in South Australia, but there has been no production during recent years.

(iv) *Tasmania.* The production of zinc from Tasmanian ores was suspended from 1931 to 1935. Developmental work on the Mount Read and Roseberry districts was continued during that period and production which commenced in 1936 amounted to 18,769 tons valued at £283,175.

The Electrolytic Zinc Co. at Risdon operated during 1936 on raw materials obtained wholly from Broken Hill in New South Wales. Production amounted to 57,744 tons of slab zinc valued at £1,119,713, and 214 tons of cadmium, valued at £59,978.

2. **World's Production.**—The world's production of zinc during the five years 1932–36 was as follows :—

ZINC.—WORLD'S PRODUCTION.

1932.	1933.	1934.	1935.	1936.
Tons. 780,000	Tons. 980,000	Tons. 1,162,000	Tons. 1,328,000	Tons. 1,440,000

The yields from the chief producing countries in 1936 were as given hereunder, the figures referring to slab zinc produced in the various countries, irrespective of the source of the ore. In common with the other industrial metals, zinc suffered from a combination of low prices and reduced demand during the years 1931 and 1932. Compared with the last-named year, world production and consumption showed a substantial increase during the next four years, despite the fact that prices still remained at a low level. The International Zinc Cartel, which was organized in 1931, continued to operate until December, 1934, when it automatically went out of existence.

ZINC.—PRODUCTION, CHIEF COUNTRIES, 1936.

Country.			Production.	Country.			Production.
			Tons.				Tons.
United States	..	..	439,400	France	..	..	53,000
Belgium	..	..	194,600	Norway	..	..	44,300
Australia	..	..	145,900	Japan	..	..	35,600
Canada	..	..	134,900	Mexico	..	..	31,700
Germany	..	..	134,000	Italy	..	..	27,000
Poland	..	..	91,100	Rhodesia	..	..	20,700
Great Britain	..	..	65,000	Netherlands	..	..	15,200
Soviet Union	..	..	65,000	Spain	..	..	7,700

The figures for Australia have been taken from returns supplied by the Australian Mines and Metals Association. On a world's production of £1,440,000 tons Australia's output of 145,900 tons represents 10 per cent.

3. **Prices.**—Information regarding prices of zinc will be found in the table in § 4 par. 5, *ante*.

§ 8. Iron.

1. **General.**—Iron ore is widely distributed throughout Australia, but the extent of the deposits has never been determined. The only two known ore bodies of large extent, high grade and easy access are those situated at Yampi Sound, Western Australia and at Iron Knob, South Australia. Estimates of the reserves at these centres place the quantities available at approximately 100 million tons and 150 million tons respectively. In a report submitted to the Government the Commonwealth Geologist stated that, bearing in mind the expansion of the iron industry in Australia, these reserves were sufficient for not more than two generations and that unless supplies were conserved Australia would, by that time, become an importer of iron ore. As the result of this advice, the Commonwealth Government prohibited the export of iron ore from 1st July, 1938. A survey of the iron ore resources of Australia is now in progress.

2. **Production.**—(i) *New South Wales.* The production from ores mined in New South Wales amounted to 4,580 tons in 1935, valued at £18,320. This is the only occasion since 1929 that ore of New South Wales origin has been used in the production of pig iron in that State. For many years the chief source of supply has been South Australia.

Small quantities of iron oxide produced in New South Wales are used by the various gasworks for purifying gas, and also in the manufacture of paper, and for pigments. These supplies are drawn chiefly from the deposits in the Port Macquarie Division. During 1936 the iron oxide raised amounted to 3,440 tons, valued at £2,001. Ironstone flux amounting to 2,432 tons valued at £950 was raised in the Goulburn Division during 1933. This is the only production recorded since 1922.

(ii) *South Australia.* The production from the deposits worked by the Broken Hill Pty. Co. Ltd., at Iron Knob and at Middlebank reached its maximum in 1936, when 1,387,298 tons of ore were raised valued at £2,170,392. The extent of the recovery that has been made in the iron and steel industry may be gauged from a comparison with the output of 289,179 tons in 1931.

(iii) *Western Australia.* Development works were continued on the deposits at Yampi Sound and at the end of 1937, 40 men were employed. These have not yet reached the production stage.

(iv) *Tasmania.* The production of iron pyrites during 1936 amounted to 33,711 tons valued nominally at £1 per ton. This is produced as a by-product from the Mount Lyell flotation plant and is exported to the mainland, where the sulphur contents have displaced imported sulphur in the manufacture of chemical fertilizers. The output has grown considerably since 1932. Apart from this pyritic ore there has been no production of iron ore since the year 1908.

(v) *Other States.* Reference to the iron ore deposits in the other States will be found in preceding issues of the Official Year Book (see No. 22, page 779).

3. *Iron and Steel Bounties.*—During the year 1936–37 the bounties paid under the Iron and Steel Products Bounty Act on articles manufactured from locally produced materials were as follows: Wire-netting, £8,467; traction engines, £20,503. Corresponding amounts paid during 1937–38 were £6,741 and £25,556 respectively.

4. *World's Production of Iron and Steel.*—(i) *General.* The Australian production of iron and steel at present forms a very small proportion of the world's output. According to the *The Mineral Industry*, the production in the principal countries during the latest available three years was as follows:—

PIG IRON AND STEEL.—WORLD'S PRODUCTION.

Country.	Pig Iron.			Steel Ingots and Castings.		
	1934.	1935.	1936.	1934.	1935.	1936.
	Thousands of Tons.			Thousands of Tons.		
United States ..	16,139	21,373	30,217	26,468	34,550	48,478
Germany ..	8,742	12,539	15,303	11,886	16,096	19,158
Soviet Union ..	10,329	12,493	14,400	9,394	12,520	16,300
United Kingdom ..	8,742	6,426	7,686	8,859	9,842	11,098
France ..	6,155	5,799	6,237	6,148	6,264	6,562
Belgium ..	2,907	3,060	3,207	2,900	2,966	3,105
Japan ..	2,404	2,716	2,869	3,742	4,532	5,368
Luxemburg ..	1,955	1,872	1,987	1,932	1,837	1,981
Saar Territory ..	1,826	(a)	(a)	1,950	(a)	(a)
India ..	1,297	1,056	1,541	798	912	880
Czechoslovakia ..	590	811	1,140	936	1,197	1,559
Italy ..	521	622	816	1,696	2,171	2,328
Canada ..	407	600	670	759	936	1,115
Australia ..	480	572	668	461	615	717
Sweden ..	523	566	585	858	895	1,022
Poland ..	382	394	582	844	946	1,143
Spain ..	348	350	281	407	560	471
China ..	225	250	..	50	60	60
Austria ..	134	193	248	309	364	418
Total—All Countries	64,240	72,111	89,802	80,797	97,887	124,374

(a) Included with Germany.

In regard to both iron and steel the figures for world production reached an exceptionally low ebb in 1932, namely, pig iron, 39,275,000 tons; steel, 50,029,000 tons. In 1933, practically all steel producing nations recorded increased production which has since continued to expand. The principal producers in Australia are the Broken Hill Proprietary and the Australian Iron and Steel Co., the former situated at Newcastle and the latter at Port Kembla in New South Wales. Additional plant has been authorized at both of these works in order to meet the increasing demand for steel in Australia whilst an extension of the industry to South Australia is also contemplated.

(ii) *Australia.* The production of steel and pig iron in New South Wales, which is the only producing State, is shown during each of the last ten years.

PIG IRON AND STEEL.—AUSTRALIAN PRODUCTION.

Year ended 30th June—	Pig Iron.	Steel Ingots.	Steel Rails, Bars and Sections.	Year ended 30th June—	Pig Iron.	Steel Ingots.	Steel Rails, Bars and Sections.
	Tons.	Tons.	Tons.		Tons.	Tons.	Tons.
1928 ..	428,404	405,590	350,941	1933 ..	336,246	392,666	295,523
1929 ..	461,110	432,773	353,921	1934 ..	487,259	518,326	431,705
1930 ..	308,369	314,917	256,096	1935 ..	698,493	696,861	585,838
1931 ..	232,783	228,363	188,708	1936 ..	783,233	820,395	671,244
1932 ..	190,132	221,488	178,740	1937 ..	913,406	1,073,479	837,445

§ 9. Other Metallic Minerals.

Tungsten ores—wolfram and scheelite—occur in several of the States, in the Northern Territory and on King Island in Bass Strait, the last-named being the subject of an investigation in 1934. On account of the low prices during recent years, mining activities have been restricted and production intermittent. During 1936, 6,373 cwt. of wolfram valued at £39,520 were raised in Australia, of which New South Wales produced 105 cwt. valued at £560; Queensland, 404 cwt., £1,889; Tasmania, 4,143 cwt., £28,323; and Northern Territory, 1,721 cwt., £8,748. New South Wales was the only State in which the production of scheelite was recorded in 1936; the quantity raised amounted to 245 cwt. valued at £1,631. With a recovery in prices, Australia would become an important contributor to the world's output of tungsten ore.

Detailed information in regard to the occurrence and production of other metallic minerals in each of the States will be found in Official Year Book No. 22, pp. 780-3 and preceding issues.

§ 10. Coal.

1. *Production in each State.*—An account of the discovery of coal in each State will be found in preceding issues of the Official Year Book. (See No. 3, pp. 515-6.) The quantity and value of the production in each State and in Australia during the years specified are given in the table hereunder:—

COAL.—PRODUCTION.

Year.	N.S.W.	Victoria. (a)	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
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QUANTITY.

	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1913 ..	10,414,165	593,912	1,037,944	..	313,818	55,043	12,414,882
1921 ..	10,793,387	514,859	954,763	..	468,817	66,476	12,798,302
1931 ..	6,432,382	571,342	841,308	..	432,400	123,828	8,401,260
1933 ..	7,118,437	523,000	875,567	..	458,399	116,573	9,091,976
1934 ..	7,873,180	356,958	956,558	..	500,343	113,933	9,800,672
1935 ..	8,698,579	476,495	1,051,978	..	537,188	123,714	10,887,954
1936 ..	9,199,466	426,725	1,046,879	..	565,075	132,264	11,370,409

VALUE.(b)

	£	£	£	£	£	£	£
1913 ..	3,770,375	274,371	403,767	..	153,614	25,367	4,627,494
1921 ..	9,078,388	603,323	831,483	..	497,117	63,146	10,068,757
1931 ..	4,607,343	362,284	609,926	..	336,178	98,004	6,103,735
1933 ..	4,306,799	328,704	603,383	..	280,806	85,848	5,794,540
1934 ..	4,541,923	215,413	752,393	..	278,704	81,262	5,866,755
1935 ..	4,887,341	282,253	843,034	..	318,013	86,204	6,416,845
1936 ..	5,126,850	253,835	858,732	..	331,595	92,269	6,663,251

(a) Exclusive of brown coal, shown in next table.

(b) At the pit's mouth.

The figures for Victoria already quoted are exclusive of brown coal, the quantities and values of which were as follows. The reduced output for 1935 is attributable to floods which retarded production during the early months of the year.

BROWN COAL.—PRODUCTION, VICTORIA.

Year.	Quantity.	Value. (a)	Year.	Quantity.	Value. (a)
	Tons.	£		Tons.	£
1913	2,984	569	1933	2,580,060	271,360
1921	79,224	31,074	1934	2,617,534	264,192
1926	957,935	188,899	1935	2,221,515	317,444
1931	2,194,453	251,511	1936	3,044,897	323,914

(a) Cost of Production.

2. Distribution and Production of Coal in each State.—(i) *New South Wales*.—The coal deposits of New South Wales constitute the most important and extensively worked in Australia. The principal fields are known as the Northern, Southern and Western, and are situated at Newcastle, Bulli and Lithgow respectively.

The coal from the various districts differs considerably in quality—that from the Northern district being especially suitable for gas-making and household purposes, while the product of the Southern and Western is an excellent steaming coal. At the present time the Greta coal seams in the Northern division are being worked extensively between West Maitland and Cessnock, and this stretch of country, covering a distance of 15 miles, is now the most important coal-mining district in Australasia.

The table hereunder gives the yields in each of the three districts during the five years 1932 to 1936 :—

COAL.—PRODUCTION IN DISTRICTS, NEW SOUTH WALES.

District.	1932.	1933.	1934.	1935.	1936.
	Tons.	Tons.	Tons.	Tons.	Tons.
Northern	4,398,253	4,651,483	5,227,647	5,679,802	6,197,554
Southern	1,112,686	1,218,014	1,344,669	1,558,282	1,626,143
Western	1,273,283	1,248,940	1,300,864	1,460,495	1,375,769
Total	6,784,222	7,118,437	7,873,180	8,698,579	9,199,466
Total Value (a) £ ..	4,376,453	4,306,799	4,541,923	4,887,341	5,126,850
Average value per ton (a) ..	12s. 11d.	12s. 1d.	11s. 6d.	11s. 3d.	11s. 2d.

(a) At the pit's mouth.

During the five years ended 1927, the average annual production of coal in New South Wales exceeded 11,000,000 tons, but in 1928 the output declined to 9,448,000 tons owing to a reduction of oversea and interstate orders. A prolonged stoppage of work in the Northern mines during the next two years and the advent of the industrial depression reduced the yield to 6,430,000 tons in 1931 since when it has gradually risen to 9,199,000 tons in 1936. Of the total quantity of coal won in New South Wales since the inception of operations to the end of the year 1936, viz., 403,500,000 tons, about 274,000,000 or 68 per cent. was obtained in the Northern District, 83,125,000 tons or 21 per cent. came from the Southern District, and 46,375,000 tons or 11 per cent. was contributed by the mines in the Western District.

(ii) *Victoria.* (a) *Black Coal.* The deposits of black coal in Victoria occur in the Jurassic system, the workable seams, of a thickness ranging from two feet three inches to six feet, being all in the Southern Gippsland district.

The output of black coal in Victoria during the last five years was as follows :—

BLACK COAL.—PRODUCTION, VICTORIA.

Year.	State Coal Mine.	Other Coal Mines.	Total Production.	Total Value. (a)	Average Value per ton. (a)
	Tons.	Tons.	Tons.	£	s. d.
1932	359,011	73,342	432,353	274,903	12 9
1933	444,868	78,132	523,000	328,704	12 7
1934	268,861	88,097	356,958	215,413	12 1
1935	393,532	82,963	476,495	282,253	11 10
1936	355,605	71,120	426,725	253,835	11 11

(a) At the pit's mouth.

(b) *Brown Coal.*—(1) *General.* Some account of the brown coal deposits and of the operations of the State Electricity Commission in connexion therewith will be found in preceding Official Year Books (see No. 22, page 785). The brown coal produced in Victoria in 1936 amounted to 3,044,897 tons, all but 2,000 tons being procured at the State open cut at Yallourn. During the year 1936–37, 3,099,784 tons of brown coal were produced by the State Electricity Commission, of which 1,684,019 tons went to the power station and 1,415,765 tons to the briquette factory.

(ii) *Production of Briquettes.* The briquetting plant started operations in November, 1924, and the output for fourteen months ending December, 1925, was 77,945 tons. In 1926 the output was 95,477 tons which had increased to 180,905 tons in 1930 and to 355,088 tons in 1936. The Yallourn briquettes are considered to be equal in quality to those produced in the best German factories.

(iii) *Queensland.* The distribution of production during the year 1936 was as follows :—

COAL PRODUCTION.—QUEENSLAND, 1936.

District.	Production.	District.	Production.
	Tons.		Tons.
Ipswich	499,732	Clermont	81,650
Darling Downs	74,704	Bowen	213,267
Wide Bay and Maryborough	71,405	Mount Mulligan (Chillagoe)	20,451
Rockhampton (Central) ..	77,379	Other	8,291
		Total	1,046,879

The production in 1936 was maintained at the 1935 level, but it is still 23 per cent. below the peak production of 1,369,000 tons in 1929. The distribution of the 1,046,879 tons raised in 1936 was as follows : Railway Department, 414,474 tons ; other industries within the State, 550,980 tons ; exported, 71,425 tons. There were 49 collieries operating in the Ipswich district, 7 in the Darling Downs, 8 in the Maryborough area, 4 in Clermont district, 4 in Rockhampton district, 1 in Chillagoe district, 1 at Mount Morgan, 1 at Mackay, and 2 in the Bowen district. State coal mines are in operation at Collinsville in the Bowen field, at Styx in the Central area, and at Mount Mulligan.

(iv) *South Australia.* So far no coal has been worked in South Australia (see Official Year Book No. 22, page 786).

(v) *Western Australia.* The production from the five collieries operating on the Collie field amounted in 1936 to 565,075 tons, an increase of nearly 28,000 tons on the return for 1935. The deposits at Wilga again remained unworked during the year.

(vi) *Tasmania.* The production in 1936 amounted to 132,264 tons, being 8,550 tons more than the total for 1935. The improved industrial demand for coal was sustained during the year and increased outputs were recorded. About 56,000 tons of the total output in 1936 were contributed by the Cornwall Coal Company, 30,000 tons by the Mt. Nicholas Proprietary and 19,000 tons by the Jubilee Company. The three mines combined raised 105,000 tons or about 80 per cent. of the total output.

(vii) *Australia's Coal Reserves.* The latest available estimate of the actual and probable coal reserves of Australia is shown in the Report of the Royal Commission on the Coal Industry 1929-1930, and is based upon that prepared by the Coal and Lignites Panel of the Power Survey Sectional Committee of the Standards Association of Australia. The following table shows the actual and probable coal reserves as determined by that Committee:—

ACTUAL AND PROBABLE COAL RESERVES OF AUSTRALIA.

(Millions of Tons.)

State.					Black Coal.	Sub-bituminous and Brown Coal.
New South Wales	..	..	..	..	13,929	..
Victoria	..	..	..	..	40	37,000
Queensland	..	..	..	..	2,238	67
South Australia	..	..	..	..	..	57
Western Australia	..	..	..	..	..	3,500
Tasmania	..	..	..	..	244	..
Total					16,451	40,624

3. *Production in Various Countries.*—The total known coal production of the world in 1936 amounted to about 1,420 million tons, towards which Australia contributed about 14.4 million tons, or 1 per cent. The following tables show the production of the chief British and foreign countries during each of the last four years where the returns are available:—

COAL PRODUCTION.—BRITISH EMPIRE.

Year.	Great Britain.	British India.	Canada.	Australia.	New Zealand.	Union of S. Africa.
BLACK COAL.						
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1933	207,112,000	19,789,000	7,619,000	9,092,000	843,800	10,545,200
1934	220,728,000	22,057,000	9,101,000	9,801,000	832,000	12,002,000
1935	222,252,000	23,017,000	9,193,000	10,888,000	825,000	13,360,000
1936	228,454,000	22,611,000	10,146,000	11,370,000	859,000	14,607,000

BROWN COAL, LIGNITE.

1933	..	..	3,000,000	2,580,000	977,400	..
1934	..	..	2,870,000	2,618,000	1,228,600	..
1935	..	..	3,186,000	2,221,515	1,290,000	..
1936	..	..	3,451,832	3,044,897	1,281,000	..

COAL PRODUCTION.—FOREIGN COUNTRIES.

Year.	Germany.	Austria.	Hungary.	Belgium.	Franco. (b)	Czecho- slovakia.	Yugoslavia.
BLACK COAL.							
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1933 ..	107,960,000	235,200	787,000	24,878,400	46,113,200	10,471,800	377,400
1934 ..	122,885,000	240,000	714,000	25,972,000	46,880,000	10,519,000	381,000
1935 ..	140,744,000	240,500	510,000	26,087,000	40,303,000	10,791,000	394,000
1936 ..	155,878,000	240,500	814,000	27,433,000	44,512,000	12,040,000	434,000

Year.	Spain.	Poland.	Nether- lands.	Soviet Union.	Japan.	China. (c)	United States.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1933 ..	5,904,000	26,024,000	12,375,000	74,730,000	32,010,000	18,505,000	342,118,000
1934 ..	5,338,000	28,771,390	12,146,000	92,456,000	35,358,000	20,568,000	371,907,000
1935 ..	6,905,000	28,091,945	11,690,000	102,770,000	34,354,000	12,000,000	375,292,000
1936 ..	(d)	29,278,000	12,600,000	120,897,000	37,466,000	(d)	436,456,000

BROWN COAL, LIGNITE.

Year.	Germany.	Austria.	Hungary.	Belgium.	France.	Czecho- slovakia.	Yugoslavia.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1933 ..	124,792,000	2,966,900	5,815,000	..	1,076,100	14,825,000	3,711,500
1934 ..	135,098,000	2,806,000	6,081,000	..	1,009,000	14,932,000	3,866,000
1935 ..	145,028,000	2,924,000	6,612,000	..	885,000	14,977,000	3,971,000
1936 ..	159,148,000	2,851,000	6,993,000	..	905,000	15,697,000	3,971,000
Year.	Spain.	Poland.	Nether- lands.	Soviet Union.	Japan.	China.	United States.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1933 ..	296,000	32,900	95,500	(a)	114,000	..	(a)
1934 ..	294,000	26,000	91,032	(a)	123,000	..	(a)
1935 ..	299,000	18,000	85,000	(a)	(d)	..	(a)
1936 ..	(d)	13,000	87,000	(a)	(d)	..	(a)

(a) Included with black coal. (b) Exclusive of Saar District, which produced 10,273,200 tons in 1932, 10,394,400 tons in 1933, 11,139,000 tons in 1934, and 1,673,000 tons from 1st January to 17th February, 1935. From this date production has been included with that of Germany. (c) Includes about 300,000 tons of lignite yearly. (d) Not available.

Compared with the previous year, the production for 1936 showed a satisfactory increase in practically all of the major producing countries of the world. Any decrease which did occur was very small. The production of the British Empire amounted to 297,000,000 tons in 1936, an increase of 9,000,000 tons or 3.1 per cent. on that of 1935. The production of foreign countries increased by 110,000,000 tons to 1,120,000,000 tons, or by 10.9 per cent. in the same period.

4. Exports.—(i) General. The quantity of coal of Australian production (exclusive of bunker coal) exported to other countries in 1936–37 was 340,388 tons, valued at £300,457. New South Wales exported 340,683 tons, Queensland, 301 tons, and Victoria

2 tons. The quantities and values of the oversea exports of Australian coal for the years specified are shown in the appended table :—

COAL.—OVERSEA EXPORTS, AUSTRALIA.

Year.	Quantity.	Value.	Year.	Quantity.	Value.
	Tons.	£		Tons.	£
1913 (a) ..	2,098,505	1,121,505	1933-34 ..	292,416	269,296
1921-22 ..	1,028,767	1,099,899	1934-35 ..	305,139	273,305
1931-32 ..	344,015	341,800	1935-36 ..	307,540	276,553
1932-33 ..	282,977	281,512	1936-37 ..	340,388	300,457

(a) Calendar Year.

Australian coal taken for bunker purposes during the same years was as follows :—

COAL.—BUNKER, AUSTRALIA.

Year.	Quantity.	Value.	Year.	Quantity.	Value.
	Tons.	£		Tons.	£
1913 (a) ..	1,647,870	1,018,375	1933-34 ..	523,014	495,032
1921-22 ..	1,498,035	2,178,101	1934-35 ..	575,418	544,875
1931-32 ..	506,140	534,897	1935-36 ..	614,333	576,549
1932-33 ..	562,442	550,277	1936-37 ..	605,425	564,071

(a) Calendar Year.

(ii) *New South Wales.* The total export of coal from New South Wales in 1936 amounted to 3,077,417 tons, valued at £2,621,810 of which 2,662,376 tons, valued at £2,136,046 were shipped from Newcastle. Interstate exports amounted to 2,166,241 tons, valued at £1,814,776 and were divided as follows :—Cargo, 1,836,766 tons, £1,564,357; bunker, 329,475 tons, £250,419. Oversea exports totalled 911,176 tons, valued at £807,034, representing 609,327 tons of bunker coal, valued at £535,964, and 301,849 tons of cargo coal, valued at £271,070.

The distribution of the total output from New South Wales collieries during the last five years was as follows, the particulars given for quantity exported including coal shipped as bunker coal :—

COAL.—DISTRIBUTION OF OUTPUT, NEW SOUTH WALES.

Year.	Exports to Australian Ports. (a)	Exports to Foreign Ports. (a)	Local Consumption.	Total.
	Tons.	Tons.	Tons.	Tons.
1932	1,501,598	792,750	4,489,874	6,784,222
1933	1,623,840	831,338	4,063,259	7,118,437
1934	1,882,873	807,154	5,183,153	7,873,180
1935	1,889,274	876,591	5,932,714	8,698,579
1936	2,166,241	911,176	6,122,049	9,199,466

(a) Including Bunker.

For the period of five years shown in the table above, 23 per cent. of the total output was exported to other States, 11 per cent. was sent overseas, and 66 per cent. was consumed locally.

The figures quoted in the table above are given on the authority of the New South Wales Mines Department.

5. *Consumption in Australia.*—It is possible from the information available to show with reasonable accuracy the disposal of the coal produced in Australia and the quantity retained for home consumption.

Under normal circumstances the production and consumption of coal move in the same direction, but in times of industrial troubles large consumers may be compelled to rely upon accumulated stocks, and, consequently annual figures may be thrown out

of alignment. For this reason the following table has been prepared on a quinquennial basis in order to smooth out any departures from the normal:—

PRODUCTION AND UTILIZATION OF COAL, AUSTRALIA.

Particulars.	Average for Five Years ending.			
	1931-32.		1936-37.	
BLACK COAL.				
Production of Saleable Coal (a)	Tons. 9,834,002		Tons. 9,927,970	
Imports	190,224		14,121	
Total Supplies	10,024,226		9,942,091	
Exported overseas	385,825	% 3.84	305,692	% 3.07
Exported as bunker, overseas	643,062	6.42	576,128	5.79
Total	1,028,887	10.26	881,820	8.86
Consumed as fuel in—				
Electric Light and Power Works	1,523,342	15.20	1,627,338	16.37
Factories (b)	1,778,186	17.73	1,705,688	17.16
Railways	3,117,380	31.10	2,761,050	27.77
Total	6,418,908	64.03	6,094,076	61.30
Consumed as raw material in—				
Gas Works	1,212,964	12.10	1,039,908	10.46
Coke Works	645,346	6.44	1,127,307	11.34
Total	1,858,310	18.54	2,167,215	21.80
Domestic consumption and all other purposes (c)	718,121	7.17	798,980	8.04
Grand Total	10,024,226	100.00	9,942,091	100.00

BROWN COAL.

Production of Brown Coal	Tons. 1,878,485		Tons. 2,667,888	
Utilization—		%		%
As fuel in Electric Light and Power Works	1,058,505	56.35	1,385,261	51.92
As raw material in Briquette Works (d)	819,890	43.65	1,282,627	48.08
Total	1,878,485	100.00	2,667,888	100.00

(a) Estimated. (b) Approximate, not including Brown Coal, see Note (d). (c) Including bunker coal for Interstate and Intrastate Shipping. (d) A portion of the briquette output is consumed in factories.

The production of coal is ascertained only in calendar years and to relate it to the other factors in the table, it was necessary to have recourse to estimates which in all probability differ but slightly from the actual figures.

6. **Prices.**—(i) *New South Wales.* The price of New South Wales coal depends on the district from which it is obtained, the northern district coal generally realizing a somewhat higher rate than the southern or western product, although during the last three years the average price in the southern fields was slightly in excess of that prevailing in the northern area. The average price at the mine in each district and for the State as a whole during the last five years was as follows :—

COAL.—PRICES, NEW SOUTH WALES.

Year.	Northern District.		Southern District.		Western District.		Average for State.	
	Per ton. s. d.		Per ton. s. d.		Per ton. s. d.		Per ton. s. d.	
1932	13	8	12	5	10	8	12	11
1933	12	9	12	6	9	5	12	1
1934	12	0	12	2	8	10	11	6
1935	11	9	11	10	8	8	11	3
1936	11	6	11	8	8	9	11	2

(ii) *Victoria.* In Victoria the average price of coal per ton at the pit's mouth in 1932 was 12s. 9d. ; in 1933, 12s. 7d. ; in 1934, 12s. 1d. ; in 1935, 11s. 10d. ; and in 1936, 11s. 11d. These averages are exclusive of brown coal, which in 1936 cost 2s. 2d. per ton to produce.

(iii) *Queensland.* Prices in the principal coal-producing districts during the last five years were :—

COAL.—PRICES, QUEENSLAND.

District.	Value at Pit's Mouth.				
	1932.	1933.	1934.	1935.	1936.
	Per ton. s. d.	Per ton. s. d.	Per ton. s. d.	Per ton. s. d.	Per ton. s. d.
Ipswich	15 2	14 9	14 11	15 5	16 0
Darling Downs	18 4	18 2	18 4	18 3	18 10
Wide Bay and Maryborough	22 10	22 7	22 11	23 1	23 9
Rockhampton	17 6	16 6	16 7	16 7	17 4
Clermont	14 0	13 11	12 11	12 5	12 8
Bowen	14 9	13 9	13 6	13 10	14 0
Mount Mulligan (Chillagoe)	27 1	28 5	26 0	29 0	28 9
Average for State ..	16 3	15 10	15 11	16 0	16 5

In 1901 the average value at the pit's mouth was 7s. per ton, and the average for the ten years 1901 to 1910 was about 6s. 8d.

(iv) *Western Australia.* The average prices of the Collie (Western Australia) coal during the last five years were : 1932, 13s. ; 1933, 12s. 8d. ; 1934, 11s. 2d. ; 1935, 11s. 10d. ; and 1936, 11s. 9d.

(v) *Tasmania.* The average prices per ton of coal at the pit's mouth in Tasmania for the last five years were : 1932, 15s. 6d. ; 1933, 14s. 9d. ; 1934, 14s. 4d. ; 1935, 13s. 11d. ; and 1936, 13s. 11d. per ton.

7. **Prices in the United Kingdom.**—During the five years 1932 to 1936 the average selling prices of coal per ton at the pit's mouth in the United Kingdom were: 1932, 13s. 3d.; 1933, 13s.; 1934, 12s. 11d.; 1935, 13s.; and 1936, 14s. 0½d. per ton.

8. **Employment in Coal Mines.**—The number of persons employed in coal mines, both above and below ground, in each of the producing States is given in the following table for the years 1913, 1923, and for each of the years 1932 to 1936:—

COAL MINES.—PERSONS EMPLOYED.

Year.	New South Wales.	Victoria.		Queensland.	Western Australia.	Tasmania.	Total.
		Black.	Brown.				
	No.	No.	No.	No.	No.	No.	No.
1913	18,843	1,377	(a)	2,548	559	136	23,463
1923	22,969	2,131	(a)	2,662	713	268	28,743
1932	14,275	1,663	281	2,392	604	381	19,596
1933	13,349	1,517	272	2,448	626	313	18,525
1934	13,465	1,592	319	2,385	624	342	18,637
1935	13,337	1,397	615	2,455	689	340	18,833
1936	14,221	1,367	419	2,432	768	334	19,541

(a) Production prior to 1924 was of little importance.

The maximum number was employed in 1926 when 31,774 persons were engaged in the coal mines of Australia. Shortly after that year a slackening in the demand for coal and a prolonged cessation of activities on one of the principal fields of New South Wales during 1929 and 1930 seriously affected the figures of employment. It would appear that the growth of mechanization has depressed employment in the industry for, notwithstanding an additional output of nearly 3,000,000 tons since 1932 the number employed in 1936 was practically the same as in the earlier year: in 1936 the output of coal per employee averaged 582 tons, compared with 418 tons in 1926.

9. **Accidents in Coal Mining.**—(i) *Australia.* The following table gives the number of persons killed or injured, with the proportion per 1,000 employed, and in relation to the quantity of coal raised, this being a factor which must be reckoned with in any consideration of the degree of risk attending mining operations. Although no precise definition of an accident is available, any disablement from misadventure which rendered the injured unfit for work for fourteen or more days has been uniformly adopted by the State Departments of Mines. A further table gives the rate of fatalities during the last five years.

COAL MINING.—EMPLOYMENT AND ACCIDENTS, 1936.

State.	Persons Employed in Coal Mining.	No. of Persons.		Proportion per 1,000 Employed.		Tons of Coal raised for each Person.	
		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
New South Wales	14,221	13	60	0.91	4.22	707,651	153,327
Victoria	1,786	1	8	0.56	4.48	3,471,622	433,953
Queensland	2,432	8	195	3.29	80.18	130,860	5,360
Western Australia	768	..	325	..	423.18	..	1,734
Tasmania	334	..	2	..	5.99	..	66,132
Total	19,541	22	590	1.13	30.19	516,836	19,271

The next table shows the average number of miners employed, number of fatalities, and rate per 1,000 during the quinquennium 1932-36 :—

COAL MINING.—FATALITIES, 1932 TO 1936.

State.	Average No. of Coal Miners Employed.	Average No. of Fatal Accidents.	Rate per 1,000 Employed.
New South Wales	13,731	12.40	0.90
Victoria	1,869	.40	0.21
Queensland	2,422	2.80	1.16
Western Australia	662	.20	0.30
Tasmania	342	.20	0.58
Total	19,026	16.00	0.84

(ii) *Other Countries.* According to the report of the Chief Inspector of Mines, the average death rate per 1,000 miners from accidents in coal mines in Great Britain during the quinquennium 1932-36 was 1.11, the rates varying between 1.35 in 1934 and 1.02 in 1936 while the rate for Australia for the same period was 0.84.

§ 11. Coke.

Notwithstanding the large deposits of excellent coal in Australia, the production of coke was limited to about 250,000 tons prior to the war. This was below local requirements and necessitated a fairly considerable import from abroad. During recent years, however, a high standard of excellence has been attained in the local product and imports have almost ceased, while Australian coke is being shipped to New Zealand and other islands in the Pacific. For the year 1936-37 the coke imported amounted to 16,277 tons, of which 13,160 tons were obtained from the United Kingdom and 3,112 tons from Germany, Western Australia being the chief importing State. The quantity exported was 21,671 tons, valued at £31,672, of which 10,504 tons, valued at £20,584, was sent to New Caledonia.

The table hereunder gives the production in New South Wales during the last five years :—

COKE.—PRODUCTION, NEW SOUTH WALES.

Items.	1932.	1933.	1934.	1935.	1936.
Quantity .. tons	356,495	473,427	688,621	857,875	893,201
Value, total .. £	403,177	512,693	636,346	802,887	800,632
Value, per ton ..	22s. 7d.	21s. 8d.	18s. 6d.	18s. 9d.	17s. 11d.

The figures quoted refer to the product of coke ovens, and are exclusive of coke produced in the ordinary way at gas works. Prior to the depression the maximum production of coke was 709,000 tons in 1927; the output fell to 217,509 tons in 1931, but with the general recovery of trade the figure rose to 893,201 tons in 1936.

A small quantity of coke is made in Queensland, the quantity returned in 1936 being 23,326 tons, of which 19,815 tons were produced at Bowen State Coke Works. The greater proportion of the output of these works was consigned to the Mount Isa Mines Ltd. and to the Chillagoe State Smelters. Hitherto the coke used at these ore-treatment works was imported from New South Wales, but now that the battery of 45 ovens is in operation, the output is sufficient to meet the requirements of the State. The following table shows the amount manufactured locally during the last five years :—

COKE.—PRODUCTION, QUEENSLAND.

Year.	1932.	1933.	1934.	1935.	1936.
Quantity .. tons	1,933	15,096	25,655	24,877	23,326

In order to avoid duplication with coal values, the returns for coke have not been included in the general tables of mineral production in the early part of this chapter.

§ 12. Oil Shale and Mineral Oil.

1. *Oil Shale.*—(i) *General.* Reference to the deposits of oil shale and the search for mineral oil in Australia will be found in Official Year Book No. 22, pages 791 to 793.

(ii) *New South Wales.* The establishment of the oil shale industry in Australia by the development of the deposits at Newnes in New South Wales has received the serious consideration of both the Commonwealth and the New South Wales Governments. The project has been the subject of a number of investigations, and a series of reports in connexion therewith have been issued. In 1937 negotiations were completed between the two Governments and the National Oil Proprietary Ltd., in which the latter company undertook to develop the shale oil industry in the Newnes-Capertee district. The Commonwealth Government agreed to protect the industry by exempting from excise up to 10 million gallons of the Company's output of petrol for a period of 25 years. The successful establishment of this project will probably lead to an expansion of the industry in Australia; it should provide another avenue for employment and serve as a valuable training ground for technicians. Production is expected to commence in January, 1939.

(iii) *Tasmania.* About 38,000 gallons of crude oil were produced in 1934 from shale treated in Tasmania, while the total quantity of oil distilled from shale up to the end of 1934 was set down at 357,000 gallons. The plant operated by the Tasmanian Shale Oil Company closed down at the end of January, 1935.

2. *Coal Oil.*—Attention has been directed to the production of oil from coal by a number of processes. A committee consisting of nominees of the Commonwealth and State Governments, excepting Western Australia, and of Imperial Chemical Industries Ltd., was appointed to advise on specific questions submitted to it. In a report submitted in June, 1937, it was stated that the stage had not been reached when Australia could establish plants for the production of oil from coal. The committee recommended, however, that close touch be kept with developments abroad.

3. *Well Oil.*—(i) *Australia.* The Commonwealth Government encourages the search for oil by placing at the disposal of companies and individuals the advice and experience of its technical staff appointed for this purpose. In co-operation with the Air Board useful aerial reconnaissances have already been made in Queensland by the Commonwealth Geological Adviser, the photographs and mosaics produced proving of great value in conjunction with the ground geological surveys. A further aerial reconnaissance was undertaken to cover most of the possible oil producing regions in Australia. Further reference is made in § 16 hereinafter to the search for oil.

(ii) *Victoria*. The production of crude petroleum oil in the year 1936 amounted to 3,783 gallons valued at £94. The total production to the end of that year amounted to 90,931 gallons worth £2,272.

(iii) *Queensland*. Great hopes were at one time entertained in regard to the petroliferous area in Queensland, but while gas and light to medium gravity oils have been found at Roma, and gas and oily wax at Longreach, structural conditions for accumulations on a commercial scale have not yet been located in the drilled areas. The search for oil was continued during 1936 by several companies in localities situated in various parts of the State.

(iv) *South Australia*. Under prescribed conditions, the South Australian Government offers a bonus of £5,000 to the person or body corporate which first obtains from a local bore or well 100,000 gallons of crude petroleum containing not less than 90 per cent. of products obtainable by distillation.

(v) *Western Australia*. During 1936, oil geologists examined territories under the direction of three companies. The reports furnished all recommended additional work and expenditure. Legislation governing petroleum prospecting was passed during the year.

§ 13. Other Non-metallic Minerals.

A more or less detailed statement regarding the occurrence and production of other non-metallic minerals is given in preceding Official Year Books (see No. 22, pages 793 to 796). The tables of quantities and values in § 1 of this Chapter will show the production of the principal items in this class for each State during the year 1936.

§ 14. Gems and Gemstones.

1. *Diamonds*.—It is difficult to secure accurate returns in connexion with the production of precious stones, but the yield of diamonds in 1936 in New South Wales was estimated at 650 carats, valued at £650. These were won by fossickers in the Inverell district. The total production to the end of 1936 is given at 205,000 carats, valued at £147,000.

2. *Sapphires*.—The production of sapphires in New South Wales during 1929 was returned as 65 ozs., valued at £450, obtained wholly at Sapphire in the Inverell division, but no output has been recorded since. Production during recent years has been restricted owing to the unfavourable market.

In Queensland, gems to the value of £2,038 were purchased on the Anakie sapphire fields in 1936. It is probable that many were sold privately or held for better prices. For these reasons the returns are considered to be very incomplete. There were about 120 miners operating on the fields during 1934 but their number decreased to 70 in 1936. Production has declined very considerably since 1920, when the yield was valued at £66,000.

3. *Precious Opals*.—The estimated value of the opal won in New South Wales during the year 1936 was £6,110, obtained on the Lightning Ridge, White Cliffs and Gravin fields. The figures quoted, however, do not represent the total output, as in many instances miners, buyers and collectors leave the fields before a record of their production or purchases can be secured. Some very fine stones are at times obtained, one weighing 5 ozs. and valued at £300 being found in 1911. Three finds of large stone were made in 1928, the gems weighing 700, 500 and 232 carats respectively, and showing fine fire and lustre. Occasionally black opals of very fine quality are found, one specimen from the Wallangulla field, weighing 6½ carats, being sold in 1910 for £102, while in the early part of 1920 a specimen realized £600. It is stated that this locality is the

only place in the world where the "black" variety of the gem has been found. The total value of opal won in New South Wales since the year 1890 is estimated at £1,619,000, but, as pointed out above, the figures are to some extent understated.

Small quantities of precious opal are found in the Beechworth district in Victoria.

The opaliferous district in Queensland stretches over a considerable area of the western interior of the State, from Kynuna and Opalton as far down as Cunnamulla. The yield in 1936 was estimated at £150, and up to the end of that year at about £188,000. These figures are, however, merely approximations, as large quantities of opal, of which no record is obtained, are disposed of privately. Production during recent years has been limited by the paucity of demand and only 4 persons were engaged during 1936. The greatest recorded output was for the year 1895 when the yield was valued at £32,750.

Owing to the poor market for gems, production from the Coober Pedy opal field, situated in the Stuart Range in South Australia fell from £11,056 in 1929 to £1,517 in 1934. Since 1935, however, production has recovered and in 1936 amounted to £9,363. The field is extremely prolific, a large quantity of precious white opal having been raised therefrom, while only a small portion of the known opal-bearing area has been thoroughly tested. The greatest yield for the State in any one year was obtained in 1920 when the value of production was returned at £24,000.

According to a report a few years ago by the Australian Trade Commissioner in the East there is a good sale for the gems in China. It is stated that there is no difficulty in cutting and polishing, as the Chinese method of dealing with jade, dating back many centuries, can also be applied to opal.

4. **Other Gems.**—Various other gems and precious stones have from time to time been discovered in the different States, the list including agates, amethysts, beryls, chiolite, emeralds, garnets, olivines, moonstones, rubies, topazes, tourmalines, turquoises and zircons. In Western Australia, 609 carats (rough) of emeralds, valued at £278, were produced during 1929 in the Cue district on the Murchison gold-field. The value of the 3,750 carats reported from the same area in 1930 was not ascertainable as there were no sales during the year. There has been no recorded production since 1930.

§ 15. Numbers Engaged, Wages Paid and Accidents in Mining.

1. **Total Employment in Mining.**—The number of persons engaged in the mining industry in Australia fluctuates according to the season, the price of industrial metals, the state of the labour markets, and according to the permanence of new finds and the development of the established mines. During the year 1936, the number so employed was as follows:—

NUMBER OF PERSONS ENGAGED IN MINING, 1936.

State.	Number of Persons engaged in Mining for—						Total.
	Gold.	Silver, Lead and Zinc.	Copper.	Tin.	Coal.	Other.	
New South Wales ..	5,204	4,163	9	1,762	14,221	1,231	26,590
Victoria ..	6,959	..	..	6	1,786	77	8,828
Queensland ..	3,983	601	196	1,270	2,432	348	8,830
South Australia ..	283	3	54	..	..	703	1,043
Western Australia ..	15,696	32	..	48	768	108	16,652
Tasmania ..	230	1,386	1,610	1,284	334	210	5,054
Northern Territory ..	372	..	4	37	..	95	508
Australia ..	32,727	6,185	1,873	4,407	19,541	2,772	67,505

Included in the figures for "other" in South Australia were 432 engaged in mining iron ore, 56 gypsum miners, 110 salt gatherers, and 50 opal miners. The Tasmanian figures include 44 osmiridium miners, and those for the Northern Territory, 40 mica miners.

The following table shows the number of persons engaged in mining in each State at intervals since 1901 and the proportion so employed to the total population:—

NUMBER ENGAGED IN MINING PER 100,000 OF POPULATION.

State.	1901.		1911.		1921.	
	Miners employed.	No. per 100,000 of Population.	Miners employed.	No. per 100,000 of Population.	Miners employed.	No. per 100,000 of Population.
New South Wales ..	36,615	2,685	37,017	2,225	29,701	1,410
Victoria ..	28,670	2,381	15,986	1,210	5,211	339
Queensland ..	13,352	2,664	13,201	2,147	5,847	700
South Australia ..	7,007	1,931	6,000	1,457	2,020	406
Western Australia ..	20,895	11,087	16,596	5,787	7,084	2,122
Tasmania ..	6,923	4,017	5,247	2,760	3,170	1,486
Northern Territory ..	..	..	715	21,595	131	3,356
Australia ..	113,462	2,992	94,762	2,109	53,164	974

State.	1931.		1935.		1936.	
	Miners employed.	No. per 100,000 of Population.	Miners employed.	No. per 100,000 of Population.	Miners employed.	No. per 100,000 of Population.
New South Wales ..	30,682	1,200	26,655	1,008	26,590	997
Victoria ..	6,463	359	9,064	492	8,828	478
Queensland ..	6,753	730	8,540	884	8,830	902
South Australia ..	518	90	974	166	1,043	178
Western Australia ..	7,147	1,653	15,557	3,493	16,652	3,700
Tasmania ..	3,397	1,512	5,079	2,212	5,054	2,187
Northern Territory ..	145	2,918	566	11,096	508	9,667
Australia ..	55,105	844	66,435	988	67,505	996

The general falling-off since 1901 is largely due to the causes mentioned in each section hereinbefore. The proportion to population shows increases since 1931 in all States excepting New South Wales, and is attributable mainly to the larger numbers engaged in the search for gold. Since that year the increase in the number so employed was approximately 9,000 persons. The number engaged in mining for tin increased by 2,200, while increases were also recorded in the mining for silver, lead and zinc, 2,700, and copper, 50. These increases were offset to some extent by the decrease in coal-mining from 21,400 in 1931 to 19,500 in 1936, which decline is largely responsible for the lower proportion employed in New South Wales.

2. **Wages Paid in Mining.**—Information regarding rates of wages paid in the mining industry, which in earlier issues of the Official Year Book was given in this chapter, is now contained in the Labour Report issued by this Bureau.

3. **Accidents in Mining, 1936.**—The following table gives particulars of the number of men killed or injured in mining accidents during the year 1936:—

MINING ACCIDENTS, 1936.

Mining for—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Australia.
KILLED.								
Coal ..	13	1	8	..	..	..	..	22
Copper ..	..	..	..	..	..	..	..	..
Gold ..	2	5	5	..	38	..	..	50
Silver, lead and zinc ..	7	..	3	..	..	2	..	12
Tin ..	2	..	..	..	..	..	..	2
Other minerals	2	..	..	1	..	..	..	3
Total ..	26	6	16	1	38	2	..	89
INJURED.								
Coal ..	60	8	192	..	325	2	..	587
Copper ..	..	..	73	2	..	60	..	135
Gold ..	15	21	41	2	1,081	..	5	1,165
Silver, lead and zinc ..	159	..	48	..	..	14	..	221
Tin ..	1	..	3	..	..	16	..	20
Other minerals	3	..	..	55	..	..	..	58
Total ..	238	29	357	59	1,406	92	5	2,186

§ 16. Government Aid to Mining.

1. *Commonwealth.*—(i) *General.* Assistance to mining has been given by the Commonwealth under the provisions of the Precious Metals Prospecting Act 1926, the Gold Bounty Act of 1930, the Petroleum Oil Search Acts 1936, which superseded the Petroleum Prospecting Acts of 1926, 1927 and 1928, the Loan Appropriation (Unemployment Relief) Act 1934 and the Northern Australia Survey Act 1934.

In addition to this financial assistance considerable sums have been spent by the Commonwealth Government in an endeavour to locate new mineral fields. In conjunction with the Empire Marketing Board a sum of £32,000 was made available to provide for geophysical prospecting in Australia. This survey was begun in April, 1928, and completed in February, 1930. A report in connexion therewith was issued.

In 1934 the Northern Australia Survey Act was passed. Under this Act the Governments of the Commonwealth and the States of Queensland and Western Australia agreed to co-operate in the conduct of an aerial, geological and geophysical survey of certain areas in Australia north of the 22nd parallel of south latitude. This survey was conducted during the three years ended 1937, and has now been extended to the end of 1940. The total cost of the survey will involve an expenditure of £252,000, of which the Commonwealth Government will contribute £140,000, Queensland £67,500 and Western Australia £44,500. The latest report was in respect of the period ending 30th June, 1938, and a number of reports on individual areas have been issued as appendices.

(ii) *Metalliferous Mining.* The Precious Metals Prospecting Act 1926 provided a sum of £40,000 of which £15,000 was to be expended in the Northern Territory, and the balance allocated to the States in such proportions as the Minister determined. The total expenditure under this Act amounted to £27,000, but no further assistance is contemplated from this fund.

The Gold Bounty Act 1930 provided that for a period of ten years from 1st January, 1931, a bounty of £1 per ounce would be payable under prescribed conditions by the Commonwealth on each ounce of fine gold produced in excess of the average production for the three years 1928–30. Under the Financial Emergency Act 1931 the Bounty was reduced to 10s. per ounce, subject to increases of 1s. for each decrease of 3s. per cent. in the average rate of exchange. The rate of exchange on which the

reduction to ros. per ounce was based was taken as 30 per cent. Under the Financial Emergency Act of 1932 the bounty was temporarily suspended.

Under the Loan Appropriation (Unemployment Relief) Act 1934 a sum of £283,750 was made available to the States as grants for assistance to metalliferous mining. The amount granted to each State and the purpose to which it was applied are set out in the table below. In addition to this the sum of £45,000 was allocated to the Northern Territory and £5,000 to Papua, making a total of £333,750. At the 30th June, 1937, the whole of this sum had been distributed.

COMMONWEALTH GRANTS TO STATES FOR ASSISTANCE TO METALLIFEROUS MINING.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
	£	£	£	£	£	£	£
Staff and Administration	5,000	8,000	3,000	..	1,000	..	17,000
Prospecting	5,000	10,000	17,000	..	50,000	2,500	84,500
Plants and Operation thereof	10,000	4,000	20,000	6,000	..	7,500	47,500
Advances (a)	17,500	20,000	5,000	17,500	..	9,250	69,250
Metallurgical Investigations	..	..	5,000	..	..	1,250	6,250
Batteries	..	..	..	10,000	5,000	1,250	16,250
Roads and Tracks	..	2,000	..	..	..	4,000	6,000
Other	5,000	6,000	20,000	..	6,000	..	37,000
Total	42,500	50,000	70,000	33,500	62,000	25,750	283,750

(a) This provision was contingent upon the States providing a similar amount.

The funds were administered by a Trust comprising representatives of the State and one representative of the Commonwealth who in each instance is the Sub-Treasury Accountant in the State.

In addition to the amounts shown above, a sum of £210,000 has been advanced by the Commonwealth Government to the States to aid the metalliferous mining industry during the years ending June, 1937 and 1938. This amount was distributed as follows: New South Wales, £33,200; Victoria, £45,700; Queensland, £60,500; South Australia, £12,800; Western Australia, £44,400; and Tasmania, £13,400. £140,000 was made available during 1936-37 and the balance of £70,000 was appropriated during 1937-38. On account of heavy financial commitments no further grants have been made by the Commonwealth Government.

(iii) *Search for Oil.* The Commonwealth Government has encouraged the search for oil in Australia, Papua and New Guinea and considerable sums have been spent during the past ten years in geological surveys and in drilling operations. Details of efforts made during that period are shown in previous issues of the Official Year Book.

In 1930 the Petroleum Oil Search Act was passed which repealed all previous enactments. Under this Act a sum of £250,000 was appropriated to assist in the search for oil in Australia and the Territories of Papua and New Guinea. Considerable preliminary geological surveys have already been conducted and attention is now being directed to the testing of approved sites by drilling. A technical committee known as the Commonwealth Oil Advisory Committee was appointed to act in an advisory capacity and to deal with applications for assistance.

The Commonwealth Oil Refineries Ltd. of which the Government of the Commonwealth of Australia is the principal shareholder has undertaken an extensive programme of prospecting for oil. The investigation is under the control of an Australian Advisory Committee of Geologists appointed by the Company, the personnel of which comprises the Commonwealth Geological Adviser, the Government Geologist of South Australia and two other members.

(iv) *Appointment of Geological Staff.* In 1927 a small geological staff, including a palaeontologist, was appointed. The Geological Adviser visited the United States and Argentine Republic in 1930 to study oil-fields conditions on the spot, and submitted a

comprehensive report, which was published as a Parliamentary Paper in 1931. Experimental aerial photographic surveys have been carried out in conjunction with the Royal Australian Air Force to determine whether similar methods were applicable under Australian conditions, and a report on the investigations has been issued.

(v) *Standing Committee on Liquid Fuels.* The Commonwealth Government recently appointed a Standing Committee on Liquid Fuels to Co-ordinate knowledge concerning the production of liquid fuels and the use of substitutes therefor, and to furnish information which will enable Australia to obtain greater independence in regard to fuel supplies. This Committee is investigating such matters as the production of oil from coal, benzol, power alcohol, shale oil and the use of producer gas in road vehicles.

2. **New South Wales.**—The chief aid given by the Government of New South Wales has been in the assistance to prospectors, but there were no appropriations from the Prospecting Vote for the years 1935–36 and 1936–37, all claims being met from Unemployment Relief Funds and the Commonwealth Grant. Aid is granted on a footage basis to sink, drive, etc., on approved sites to which a valid mining title is held. Grants approved during the year amounted to £29,462 but the actual expenditure in respect of work completed amounted to £27,655. Loans are also made to assist in the erection of crushing batteries or reduction plants on which interest at the rate of 4 per cent. is charged. During the year loans totalling £15,527 were approved. No rewards were paid in connexion with the discovery of new mineral fields.

3. **Victoria.**—During the year 1936 expenditure in connexion with mining amounted to £41,197. Of this amount £11,521 consisted of advances to prospectors and £13,647 was advanced to companies on a £ for £ basis under conditions of Commonwealth Grant for assistance to metalliferous mining. The balance of £16,029 was provided for operation of State Batteries and boring operations, etc.

4. **Queensland.**—State assistance to the mining industry in 1936–37 amounted to £16,886, of which £14,146 was advanced to prospectors, the balance consisting of grants under the Mining Machinery Advances Act £1,264, and £1,476 for the provision of transport facilities, etc., to mineral fields. In addition to the above amounts, a sum of £12,890 was spent in connexion with the aerial survey of North Australia.

Mining operation conducted by the State include three coal mines situated at Bowen, Styx and at Mt. Mulligan, three batteries at Kidston, Charters Towers and Bamford, an assay office at Cloncurry, smelting works at Chillagoe, coke works at Bowen, and the State treatment works at Irvinebank. The battery at Charters Towers continued to be leased privately.

5. **South Australia.**—Aid is given to the mining industry under the terms of the Mining Act of 1893, and previous measures. Up to the end of 1936 the total amount of subsidy paid was £70,915, of which £16,696 has been repaid, and £4,700 written off, leaving a debit of £49,519. Portion of this amount is represented by machinery that has fallen into the hands of the Government. Repayments must be provided from profits, but in only two instances have the profits enabled a full return to be made. The State maintains batteries and cyanide works at Mount Torrens, Peterborough, Mongolata and Tarcoola, and assays for public purposes are made at the School of Mines. Advances to prospectors in 1936 amounted to £2,716.

6. **Western Australia.**—Under the Mining Development Act of 1902 assistance was granted in 1936 in accordance with the subjoined statement:—Aid to prospectors, £9,512; subsidies on stone crushed for the public, £272; advances in aid of mining work and equipment of mines with machinery, £2,832. Other assistance granted from the vote on various matters during the year amounted to £1,341. The total amount involved was £13,957.

In 1936 there were 24 State batteries in operation of which three were leased. The amount expended thereon up to the end of 1936 was £61,081 from revenue, £374,763 from loan fund and £29,354 from other sources giving a total of £100,098. The working expenditure up to the end of 1936 exceeded the revenue by £102,241. The total value of gold and tin produced to the end of 1936 at the State plants was £0,071,810. Free assays and determinations of mineral values for prospectors are made at the Kalgoorlie School of Mines and at the Government laboratory at Perth.

7. *Tasmania*.—Aid to Mining in 1936 amounted to £5,874, of which £5,376 was expended under the Aid to Mining Act 1927 on drilling and assistance and sustenance to prospectors, and the balance of £498 was paid from The Unemployment Relief Act. The amount received from ore sales was £74, the bulk of which was paid to tributers. Receipts amounted to £152.

Tributers' assays are made at a nominal charge, and all tribute surveys are carried out free of charge by the Assay and Survey Office at Zeehan.

8. *Northern Territory*.—During the year 1935-36 the assistance granted to prospectors amounted to £1,078. In addition a sum of £14,484 was also granted to assist gold mining companies.

The Government maintains batteries at Marranboy, Pine Creek and Tennant Creek. Government Assayers situated at Darwin and Alice Springs make free assays for prospectors, and arrange for the sampling, storage and sale of ores.

§ 17. Metallic Contents of Ores, etc., Produced and Exported.

1. *Local Production*.—According to returns compiled from various sources by the Australian Mines and Metals Association, the quantities of the principal metals (exclusive of gold) extracted in Australia during the five years 1933 to 1937 were as follows :—

REFINED METALS PRODUCED IN AUSTRALIA.

Metal.		1933.	1934.	1935.	1936.	1937.
Silver ..	ozs.	7,957,148	8,674,549	8,983,950	8,498,674	9,510,509
Lead, pig ..	tons	159,393	160,201	181,211	159,504	186,757
Zinc ..	"	53,956	54,629	67,666	70,509	69,750
Copper ..	"	11,238	7,970	11,768	13,313	17,400
Tin ..	"	2,360	2,330	2,837	2,717	2,907

The local production of pig iron during the quinquennium 1923-27 ranged between 330,000 tons in 1923 and 517,000 tons in 1927. Complete information for the later years is not available from the returns published by the Association, but according to the metal extraction returns published in the *Statistical Register of New South Wales*, the production of pig iron in that State amounted in 1933-34 to 487,250 tons, in 1934-35 to 698,493 tons, in 1935-36 to 783,233 tons, and in 1936-37 to 913,406 tons. As pointed out previously, the iron ore used is now obtained from South Australia.

2. *Metallic Contents of Ores, Concentrates, etc., Exported*.—The estimated metallic contents of ores, concentrates, etc., exported during the five years 1933 to 1937, as supplied by the Australian Mines and Metals Association, are given in the following table :—

METALLIC CONTENTS OF ORES, CONCENTRATES, ETC., EXPORTED.

Metal.	Contained in—	1933.	1934.	1935.	1936.	1937.
Silver	ozs. { Lead-Silver-Gold Bullion	2,177,633	1,819,546	2,506,015	2,810,828	3,505,203
	{ Lead Concentrates and Ores	447,013	612,014	275,154	444,052	557,438
	{ Zinc Concentrates and Ores	319,870	147,522	217,266	222,536	204,840
	{ Copper and Gold Ores ..	..	..	..	..	..
	Total	2,945,446	2,579,082	2,998,435	3,477,416	4,267,571
Lead	tons { Lead-Silver-Gold Bullion	45,871	35,804	36,723	33,450	41,773
	{ Lead Concentrates and Ores	10,019	21,075	9,610	17,497	10,056
	{ Zinc Concentrates and Ores	2,196	803	1,658	1,587	1,420
	Total	64,086	57,682	48,000	52,534	53,279
Zinc	tons { Lead Concentrates and Ores	586	..	..	..	..
	{ Zinc Concentrates and Ores	60,142	26,963	54,693	75,391	76,990
	Total	60,728	26,963	54,693	75,391	76,990
Copper	tons Ores, Matte, etc. ..	1,109	1,122	1,361	2,770	2,389
Tin	tons Concentrates and Ores ..	130	198	280	246	192

§ 18. Oversea Exports of Ores, Metals, etc.

The following table shows the quantities and values of the principal oversea exports of ores, concentrates and metals, the produce of Australia, together with the countries to which the respective products were forwarded, for the year 1936-37:—

OVERSEA EXPORTS OF AUSTRALIAN ORES, METALS, ETC., 1936-37.

Article.	Total Exports.	Exports to—						
		United Kingdom.	U.S. America.	Belgium.	Germany.	Japan.	New Zealand.	Other Countries.
QUANTITY.								
Ores—	cwt.*	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.
Copper ..	34,084	1,106	29,849	399	2,730	..	..	..
Silver and Silver-lead ..	21,984	1,051	..	16,870	4,063	..	..	..
Iron ..	5,342,585	805	1,376,760	72,020	..	3,890,084	706	2,210
Wolfram ..	7,380	530	2,416	1,163	2,483	..	..	788
Tin ..	1,595	397	..	946	..	..	(b)	252
Zinc ..	..	..	..	..	..	..	..	..
Other ..	97,654	4,281	86,213	1,437	4,433	145	40	1,105
Concentrates—								
Silver and Silver-lead ..	559,537	10,003	..	508,928	40,606	..	..	..
Zinc ..	2,845,954	2,693,116	..	106,409	..	..	(c)	46,429
Copper ..	213,503	435	210,472	23	1,727	..	..	706
Tin ..	7,515	632	..	6,883	..	..	..	..
Lead Slime Residue ..	725	327	398	..	..	..	..	..
Gold Ore, Quartz and Concentrates ..	19,595	1,670	17,616	309	..	..	..	..
Other ..	2,796	787	2	2,007	..	..	..	..
Cadmium—Blocks, Ingots, etc. ..	3,810	2,942	..	..	..	291	10	567
Copper—								
Matte ..	34,139	..	..	34,139	..	..	..	..
Ingots ..	34,883	34,002	..	..	423	36	421	1
Tin—Ingots ..	13,524	8,367	1,100	..	..	..	3,970	87
Lead—								
Pig ..	3,426,736	3,301,495	..	..	..	77,975	33,835	13,431
Matte ..	54,140	19,300	34,340	..	..	..	..	..
Zinc—Bars, Blocks, etc. ..	955,501	276,576	..	..	..	392,883	2,222	(d) 283,820
Platinum, Osmium, etc. ..	oz. (a) 576	oz. 576	oz. ..	oz. ..	oz. ..	oz. ..	oz. ..	oz. ..
Gold—								
Bar, Dust, etc. ..	1,341,988	689,626	650,820	..	..	..	..	(e) 1,542
Silver—								
Bar, Ingots, etc. ..	5,063,715	164,829	500	..	132,199	..	1,455	(f) 4,764,723

VALUE.

Ores—	£	£	£	£	£	£	£	£
Copper ..	16,566	56c	9,180	835	5,991	..	..	..
Silver and Silver-lead ..	11,583	220	..	10,901	462	..	..	..
Iron ..	144,143	107	37,575	1,891	..	103,974	79	517
Wolfram ..	58,166	3,989	23,512	6,531	18,541	..	..	5,593
Tin ..	4,473	2,170	..	568	..	..	..	(b) 1,735
Zinc ..	..	..	..	..	..	..	..	..
Other ..	54,232	9,300	19,159	6,604	10,379	7,638	16	1,136
Concentrates—								
Silver and Silver-lead ..	487,918	6,722	..	440,292	40,904	..	..	..
Zinc ..	874,309	859,379	..	9,588	..	..	..	(e) 5,342
Copper ..	378,928	924	371,737	200	4,330	..	..	1,737
Tin ..	67,048	4,280	..	62,768	..	..	..	..
Lead Slime Residue ..	188	158	30	..	..	..	..	..
Gold Ore, Quartz and Concentrates ..	25,873	2,126	23,515	232	..	..	..	..
Other ..	8,385	4,365	5	4,015	..	..	..	..
Cadmium—Blocks, Ingots, etc. ..	70,547	55,359	..	..	..	5,059	162	9,967
Copper—								
Matte ..	39,725	..	..	39,725	..	..	..	..
Ingots ..	96,904	93,787	..	..	1,512	53	1,448	4
Tin—Ingots ..	193,928	120,303	13,911	..	..	..	58,640	1,014
Lead—								
Pig ..	4,736,992	4,539,805	..	..	..	129,158	48,828	19,201
Matte ..	80,757	26,009	54,748	..	..	..	..	..
Zinc—Bars, Blocks, etc. ..	1,314,026	375,522	..	..	..	533,106	3,031	(d) 402,367
Platinum, Osmium, etc. ..	8,533	8,533	..	..	..	..	..	..
Gold—								
Bar, Dust, etc. ..	11,660,562	5,995,013	5,652,119	..	..	..	..	(e) 13,430
Silver—								
Bar, Ingots, etc. ..	578,213	18,940	53	..	14,814	..	178	(e) 544,228
Total ..	20,911,909	12,127,631	6,205,544	584,150	90,933	779,088	112,382	1,006,271

(a) Mainly osmiridium exported from Tasmania and platinum from New South Wales. (b) Malaysia (British). (c) France. (d) India, 271,068 cwt., £384,047; China, 10,296 cwt., £15,095. (e) Ceylon, 3,978,876 fine ozs., £451,666; India, 784,506 fine ozs., £92,404.

CHAPTER XIX. PASTORAL PRODUCTION.

§ 1. Initiation and Growth of Pastoral Industry.

1. **Early Statistics.**—The live stock which Captain Phillip brought with him when establishing the first settlement in Australia, in January, 1788, is stated to have comprised seven horses, six cattle, twenty-nine sheep, twelve pigs and a few goats. Later in the same year, in a letter from Captain Phillip to Lord Sydney, then Secretary of State for the Colonies, an enclosure sets forth the numbers of each kind of live stock in the colony on 1st May, 1788. These details together with those of later enumerations are shown in the following table:—

LIVE STOCK.—AUSTRALIA.

Date.		Horses.	Cattle.	Sheep.	Pigs.	Goats.
1st May, 1788 ..	..	7	7	29	74	19
10th November, 1791 ..	..	4	18	57	37	(c) 522
1st July, 1794 ..	..	(a) 20	40	576	(c)	985
15th June, 1795 ..	..	(b) 49	176	832	(c)	1,427
1st September, 1796 ..	..	57	227	1,531	1,869	2,182
15th August, 1800 ..	..	203	1,044	6,124	4,026	

(a) Not including three asses.

(b) Not including seven asses.

(c) Not stated.

The return for the year 1788 includes, in addition to poultry, five rabbits.

2. **Subsequent Statistics.**—The statistical returns of live stock in Australia subsequent to the year 1800 referred mainly to those in possession of the Government, omitting those owned by individuals. Doubtless the growth of population, the expansion of the area settled and the increase of private ownership made it difficult in those early times to secure accurate returns. The figures continued to be somewhat defective up to 1860, but from that year onwards fairly complete information is available for most of the States. At the present time, statistics of live stock are collected annually in all the States principally through the agency of the police, but in the years 1885 to 1888 inclusive, and 1893 to 1895 inclusive, these particulars were not collected in South Australia, and similar gaps occur in the Victorian records for the periods 1895 to 1899 inclusive and 1901 to 1903. In order to obtain totals for Australia for these years the missing numbers have been supplied by interpolation. The results so obtained probably differ but slightly from the actual numbers for the respective years.

3. **Increase in Live Stock.**—Particulars concerning the numbers of each of the principal kinds of live stock in Australia at decennial intervals from 1860 to 1930, and from 1931 onwards in single years are given in the following table, and are shown continuously on the graph on page 614.

During the seventy-six years covered by the table the live stock of Australia increased considerably, horses 309 per cent.; cattle 241 per cent.; sheep 448 per cent.; and pigs 243 per cent. The average annual increases which these aggregates represent are as follows:—Horses, 1.87 per cent.; cattle, 1.63 per cent.; sheep, 2.26 per cent.; and pigs, 1.63 per cent.

LIVE STOCK.—AUSTRALIA.

31st December.				Horses.	Cattle.	Sheep.	Pigs.
1860	..	..	..	431,525	3,957,915	20,135,286	351,096
1870	..	..	..	716,772	4,276,326	41,593,612	543,388
1880	..	..	..	1,068,774	7,527,142	62,184,252	815,776
1890	..	..	..	1,521,598	10,299,816	97,881,221	891,138
1900	..	..	..	1,609,654	8,640,225	70,602,995	950,349
1910	..	..	..	2,165,866	11,744,714	98,066,046	1,025,850
1920	..	..	..	2,415,510	13,499,737	81,795,727	764,406
1930	..	..	..	1,792,734	11,720,916	110,568,279	1,071,679
1931	..	..	..	1,775,550	12,260,955	110,618,893	1,167,845
1932	..	..	..	1,765,437	12,783,137	112,926,931	1,162,407
1933	..	..	..	1,763,225	13,512,486	109,921,053	1,046,867
1934	..	..	..	1,767,758	14,048,671	113,048,037	1,158,274
1935	..	..	..	1,764,430	13,911,659	108,875,801	1,293,964
1936	..	..	..	1,762,750	13,491,072	110,242,704	1,202,752

4. **Fluctuations.**—The increases referred to, however, have not been continuous, marked fluctuations having taken place during the period, mainly on account of the droughts which have from time to time left their impress on the pastoral history of Australia. These were in evidence in 1868, 1877, 1883-4, 1892, 1893, 1895, 1901-2, 1912, 1914, 1918, 1919, 1922-23, 1925-26 and 1927-28.

The years in which the numbers of live stock attained their maxima are as follows:—Horses, 1918, 2,527,149; cattle, 1921, 14,441,309; sheep, 1934, 113,048,037; and pigs, 1935, 1,293,964.

5. **Live Stock in Relation to Population.**—The number of each kind of live stock per head of the population of Australia has varied during the past seventy-six years in the manner shown in the succeeding table:—

LIVE STOCK PER HEAD OF POPULATION.—AUSTRALIA.

Year.	Horses.	Cattle.	Sheep.	Pigs.	Year.	Horses.	Cattle.	Sheep.	Pigs.		
1860	..	0.38	3.45	17.58	0.31	1930	..	0.28	1.81	17.07	0.17
1870	..	0.43	2.60	25.24	0.33	1932	..	0.27	1.95	17.23	0.18
1880	..	0.48	3.37	27.87	0.37	1933	..	0.26	2.03	16.52	0.16
1890	..	0.48	3.17	31.06	0.28	1934	..	0.27	2.11	16.97	0.17
1900	..	0.43	2.29	18.75	0.25	1935	..	0.26	2.06	16.13	0.19
1910	..	0.49	2.65	22.16	0.23	1936	..	0.26	1.98	16.20	0.18
1920	..	0.44	2.49	15.11	0.14						

6. **Live Stock in Relation to Area.**—The numbers of live stock per square mile in the several States and Territories of Australia are given in the following table:—

LIVE STOCK PER SQUARE MILE, 1936.

State or Territory.	Horses.	Cattle.	Sheep.	Pigs.
New South Wales	1.76	10.63	171.82	1.26
Victoria	4.06	22.81	200.98	3.63
Queensland	0.66	8.87	29.85	0.43
South Australia	0.53	0.86	20.80	0.22
Western Australia	0.16	0.81	9.23	0.08
Tasmania	1.18	9.98	85.21	1.53
Northern Territory	0.06	1.83	0.02	0.00
Australian Capital Territory	1.19	10.49	259.97	0.48
Australia	0.59	4.54	37.06	0.40

7. **Minor Classes of Live Stock.**—Excluding Victoria, where the details are not available, the numbers of minor classes of live stock returned for 1936 were as follows:—Goats, 140,579; camels, 4,363; mules and donkeys, 13,310; and ostriches, 20. Of these, goats were most numerous in Queensland, camels, mules and donkeys in Western Australia, and ostriches in South Australia. In the raising of goats, some attention has been devoted to the angora goat and its product (mohair), and 6,155 angora goats are included in the total of 140,579 goats shown above. Of these, 1,720 were in New South Wales, 940 in Queensland, 2,204 in South Australia, 506 in Western Australia, and 395 in Tasmania.

8. **Net Exports of Principal Pastoral Products.**—The quantities by which the exports of the principal pastoral products of Australia exceeded the imports for the years 1932-33 to 1936-37 were as follows:—

NET EXPORTS OF PASTORAL PRODUCTS.—AUSTRALIA.

Product.	Unit of Quantity.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
QUANTITIES.						
Animals (living)—						
Cattle	No.	189	115	63	76	—665
Horses	"	3,227	3,249	4,123	3,783	4,674
Sheep	"	51,821	42,914	58,182	64,340	49,896
Bones	cwt.	8,299	8,737	10,207	17,188	16,603
Glue-pieces and Sinews	"	495	225	1,251	379	(a)
Glycerine	lb.	93,126	—288,222	—9,282	—1,193,982	—1,163,777
Hair	"	—121,363	—119,775	—559,673	—962,875	—1,152,934
Hoofs	cwt.	(a)	(a)	(a)	(a)	(a)
Horns	"	(a)	(a)	(a)	(a)	(a)
Meats—						
Frozen Beef (b)	lb.	153,972,403	173,076,002	212,099,109	196,818,221	233,851,658
" Mutton and Lamb	"	100,797,195	171,106,849	190,192,820	178,005,079	208,457,570
" Rabbits and Hares	pair	(a)	(a)	(a)	(a)	(a)
" Other	lb.	9,579,958	12,214,574	15,012,140	15,008,209	18,408,278
Potted, and Extract of	"	(a)	(a)	(a)	(a)	(a)
Preserved in Tins, etc.	lb.	7,212,976	4,620,270	5,941,584	6,418,202	9,197,093
Other (excluding Bacon and Ham)	"	330,186	466,613	408,396	561,341	637,509
Sausage Casings	cwt.	10,429	19,361	14,543	8,938	12,502
Skins—						
Hides	No.	(a)	(a)	(a)	(a)	(a)
Sheep	"	(a)	(a)	(a)	(a)	(a)
Rabbit and Hare	cwt.	77,873	99,339	84,744	91,443	66,446
Other (including Undressed Furs)	"	(a)	(a)	(a)	(a)	(a)
Tallow	cwt.	745,422	471,591	822,751	445,358	624,521
Wool—						
Greasy	lb.	848,468,549	728,676,211	782,278,901	742,738,515	755,610,976
Scoured	"	73,148,756	72,073,544	60,408,783	63,053,803	60,594,446
Tops	"	2,525,380	2,923,974	3,104,232	3,144,411	3,746,779
Nolls	"	1,208,204	1,911,741	1,303,616	1,647,629	1,219,681
Waste	"	738,201	837,184	1,067,598	880,045	621,324

NOTE.—The minus sign (—) signifies net imports.
chilled beef.

(a) Quantity not available.

(b) Including

The values of the net exports for the same five years are furnished in the next table, and amount to no less a total than £306,250,709 for the period, or an average of £61,250,142 per annum, of which wool represents 80.45 per cent. Meat, skins and tallow rank next in order of importance.

NET EXPORTS OF PASTORAL PRODUCTS.—AUSTRALIA.

Product.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
VALUES. (a)					
Animals (living)—	£	£	£	£	£
Cattle	—7,089	—27,300	—26,491	—30,244	—24,921
Horses	78,054	35,046	—15,631	3,473	—9,385
Sheep	12,654	14,440	30,118	36,062	16,605
Bones	5,199	6,058	7,406	9,911	9,804
Blue-plies and Sinews	2,489	1,128	2,908	4,812	317
Glycerine	7,421	1,172	4,962	—34,937	—38,748
Hair	—53,063	—58,098	—61,902	—115,077	—120,245
Hoofs	4,330	5,755	6,002	5,935	(c)
Horns	12,771	14,301	18,083	16,721	19,762
Meats					
Frozen Beef (b)	1,854,560	2,020,049	2,559,605	2,481,803	3,035,943
" Mutton and Lamb	2,697,213	3,575,827	4,475,665	4,465,691	5,233,626
" Rabbits and Hares	559,367	425,665	443,484	243,623	(c)
" Other	170,462	216,428	266,167	286,415	385,061
Potted, and Extract of	—7,584	—29,452	—29,507	—32,925	—38,916
Preserved in Tins, etc.	183,539	130,996	152,880	191,310	295,172
Other (excluding Bacon and Ham)	7,710	10,581	7,649	9,885	10,407
Sausage Casings	44,002	184,373	106,210	9,206	60,582
Skins—					
Hides	52,995	119,344	147,782	450,577	976,227
Sheep	1,368,986	2,624,990	1,753,908	2,808,267	3,785,748
Rabbit and Hare	450,862	949,819	867,068	1,732,715	1,623,046
Other (including Undressed Furs)	—43,379	99,772	—32,912	—110,180	165,625
Tallow	788,395	476,309	922,505	653,353	822,828
Wool—					
Greasy	32,063,303	49,463,224	34,095,191	45,806,287	54,921,808
Scoured	3,952,313	6,646,248	4,598,459	5,348,336	6,659,952
Tops	271,993	434,472	331,833	404,644	532,121
Nolls	53,902	121,445	75,950	123,481	112,969
Waste	20,030	32,220	39,935	48,848	32,780
Total Values	44,551,444	67,495,712	50,727,387	65,017,998	78,458,168

NOTE.—The minus sign (—) signifies net imports. (a) Australian currency values.
(b) Including chilled beef. (c) Not recorded separately.

9. Value of Pastoral Production.—Particulars of the gross, local and net values of pastoral production for each State are shown in the following table for the year 1936-37 together with the totals for the preceding two years. Fuller details of the source of the information and an explanation of the terms used in this compilation will be found in Chapter XXVIII. "Miscellaneous". It should be noted, however, that maintenance costs have not been computed in all States and depreciation has not been deducted; consequently the net value of production is inflated to the extent of these costs.

GROSS, LOCAL AND NET VALUES OF PASTORAL PRODUCTION, 1936-37.

State.	Gross Production valued at Principal Markets.	Marketing Costs.	Gross Production valued at Farm.	Farm Costs.		Net Value of Production. (a)
				Seed used and Fodder for Farm Stock.	Value of other materials used in process of Production.	
	£	£	£	£	£	£
New South Wales ..	43,758,000	3,452,000	40,306,000	706,000	300,000	39,300,000
Victoria ..	21,948,704	1,642,169	20,306,535	300,000	504,325	19,502,210
Queensland ..	16,145,000	1,533,000	14,612,000	300,000	200,000	14,112,000
South Australia ..	6,157,407	691,625	5,465,782	117,610	130,916	5,217,256
Western Australia ..	5,597,783	502,683	5,005,100	256,931	150,939	4,597,230
Tasmania ..	1,912,400	131,520	1,780,880	57,000	31,300	1,692,580
Total 1936-37	95,429,294	7,952,997	87,476,297	1,737,541	1,317,480	84,421,276
1935-36	83,224,102	7,506,983	75,717,119	1,505,033	983,754	73,227,732
1934-35	64,647,128	6,086,693	57,660,435	1,314,516	587,420	55,758,499
1933-34	84,302,489	7,684,309	76,618,180	1,265,686	545,903	74,806,591

(a) No deduction has been made for depreciation and maintenance.

Although depreciation has not been deducted in arriving at the net value of production this item was compiled in each State for 1936-37 and amounted in the aggregate to £495,200

10. **Consumption of Meats.**—Particulars of the per capita consumption of meat in Australia are shown in the following table, together with details for certain other countries. The figures have in each case been obtained from official sources, although it is not definitely known that they are all on a similar basis.

The average consumption in Australia is slightly lower than that of New Zealand, but it is greatly in excess of that of Canada, Great Britain and the United States. Compared with Australia the consumption of beef, mutton and lamb in these countries is relatively small, but pork consumption is greatly in excess of the average recorded both for Australia and New Zealand.

The world's supply of beef, mutton and lamb is obtained chiefly from countries situated in the Southern Hemisphere of which Argentine Republic, Australia, New Zealand and Uruguay are the main contributors. Argentine Republic furnishes the largest export of beef and New Zealand that of mutton and lamb, while Australia occupies second place in both commodities. Supplies of pork and pork products are largely drawn from countries in the Northern Hemisphere. It is to be expected, therefore, that the per capita consumption of beef, mutton and lamb will be greatest in the southern producing countries, and pig meat in the northern.

MEATS.—ESTIMATED PER CAPITA CONSUMPTION, AUSTRALIA AND OTHER COUNTRIES.

Description.	Australia, 1936-37.	New Zealand, 1936-37.	Great Britain, 1936.	Canada, 1937.	United States of America, 1936.
	lb.	lb.	lb.	lb.	lb.
Beef and Veal ..	146.08	125.00	70.00	58.89	65.50
Mutton and Lamb ..	71.51	97.09	30.00	6.16	6.50
Pork and Bacon and Ham ..	20.63	19.30	44.00	62.35	54.80
Total All Meats ..	238.22	241.30	144.00	127.40	126.80

§ 2. Horses.

1. **Suitability of Australia for Horse-breeding.**—From the earliest times the suitability of the climate and pastures of Australia for the production of serviceable breeds of horses has been fully recognized. By the importation of high-class sires, and the careful selection of breeding mares, these natural advantages have been utilized to the fullest extent in breeding all classes of horses. As a consequence of this combination of advantages, the Australian horse, whether of the heavy draught, medium weight, or light saddle and carriage variety, compares more than favourably with the product of other lands. The Australian horse is highly regarded by the military authorities in India and considerable numbers are purchased each year for remount purposes, although the demand is not so great as in former years.

2. **Distribution throughout Australia.**—The States of New South Wales, Queensland and Victoria together depasture more than 76 per cent. of the total number of horses in Australia. In the following table figures are given for each State and Territory during each of the last five years :—

HORSES.—NUMBER

31st Dec.	N.S.W. (a)	Vic. (a)	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T. (a)	Total.
1932	528,943	372,907	451,644	190,222	157,443	30,269	33,072	937	1,765,437
1933	532,028	361,005	448,918	196,789	159,646	30,299	33,590	950	1,763,225
1934	534,853	357,877	447,804	198,765	161,636	30,662	35,094	1,067	1,767,758
1935	542,862	356,106	441,075	197,368	160,181	30,626	35,152	1,060	1,764,430
1936	545,320	357,158	440,568	200,870	155,177	30,971	31,056	1,121	1,762,750

(a) 31st March year following.

The number of horses attained its maximum in Australia during 1918, when a total of 2,527,149 was recorded: in the same year the United States of America made its highest recording, and Canada reported likewise in 1921. The number in Australia has declined considerably since 1918 as the result of the development in motor transportation and the increasing use of petrol-driven cultivating and other machinery on farms.

During the past five years, however, the returns have been practically stationary probably due to the halt in the use of power-driven machinery on farms owing to depressed prices.

The number of horses in Australia from 1860 onwards may be ascertained from the graph on page 614.

3. **Proportions in the Several States and Territories.**—The percentages of the number of horses in the several States and Territories on the total for Australia for the year 1936 were:—New South Wales, 30.97; Victoria, 20.26; Queensland, 24.99; South Australia, 11.39; Western Australia, 8.81; Tasmania, 1.76; Northern Territory, 1.76; and Australian Capital Territory, 0.06 per cent.

The percentages in the various States have remained practically constant during the last quinquennium.

4. **Relation to Population.**—In proportion to population, horses are much more numerous in the Northern Territory than in any other of the principal divisions of Australia. Queensland is next in order, while the Australian Capital Territory has the smallest number of horses per head. The number per head of population has declined in all the statistical divisions since 1927. For the year 1936 the relative numbers were.—New South Wales, 0.20; Victoria, 0.19; Queensland, 0.45; South Australia, 0.34; Western Australia, 0.34; Tasmania, 0.13; Northern Territory, 5.84; Australian Capital Territory, 0.11; and Australia, 0.26.

5. **Comparison with other Countries.**—The numbers of horses in the leading horse-breeding countries of the world are as follows:—

HORSES.—NUMBERS IN PRINCIPAL COUNTRIES.

Country.	Year.	Number of Horses (,000 omitted).	Country.	Year.	Number of Horses (,000 omitted).
Soviet Union ..	1937	16,200	Dutch East Indies	1936	655
U.S. of America ..	1937	11,163	Uruguay ..	1930	623
Argentine Republic	1937	8,527	Sweden ..	1937	620
Brazil ..	1935	6,052	Cuba ..	1934	569
China ..	1935	4,080	Spain ..	1933	598
Poland ..	1937	3,888	Lithuania ..	1937	552
Germany ..	1937	3,434	Denmark ..	1937	552
Canada ..	1937	2,883	Chile ..	1936	528
France ..	1937	2,742	Bulgaria ..	1926	482
India (British and Native)	1935	2,379	Peru ..	1929	432
Rumania ..	1935	2,167	Ireland (Eire) ..	1937	429
Mexico ..	1930	1,888	Haiti ..	1935	400
Manchuria ..	1936	1,840	Latvia ..	1937	392
Australia ..	1936	1,763	Bolivia ..	1931	390
Japan ..	1936	1,432	Siam ..	1936	374
Yugoslavia ..	1936	1,216	Finland ..	1936	369
United Kingdom ..	1935	1,103	Greece ..	1936	359
Colombia ..	1934	972	Netherlands ..	1937	300
Union of South Africa	1930	868	New Zealand ..	1937	278
Hungary ..	1937	798	Belgium ..	1936	265
Italy ..	1937	796	Austria ..	1934	261
Turkey ..	1937	723	Paraguay ..	1935	237
Czechoslovakia ..	1936	704	French Morocco	1937	210
			Estonia ..	1937	209

6. **Oversea Trade in Horses.**—(i) Exports. Australia's export trade in horses has fluctuated considerably since the war, and is now far below that of earlier years. For instance, during the period 1901–5 the average number exported was over 18,000, whereas during the last five years the figure was 4,100. The total number of horses exported during the latter period amounted to 20,695, valued at £648,671, equal to an annual average of 4,139 for £129,734. The average export price was £31 6s. 11d. The horses exported to India, where they are largely used for army remounts, numbered 3,388 or 82 per cent. of the average exports for the quinquennium.

(ii) Imports. The number of horses imported into Australia is comparatively small, consisting mainly of valuable stud animals from the United Kingdom and racehorses from New Zealand. The average value per head of the horses imported during the last

five years was £339. The average number imported per annum was, however, only 328, and the average annual value, £111,303. The following table gives the imports, exports and net exports of horses during each of the years from 1932-33 to 1936-37:—

HORSES.—IMPORTS AND EXPORTS.—AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	No.	Value. (a)	No.	Value. (a)	No.	Value. (a)
		£		£		£
1932-33 ..	180	30,853	3,407	108,907	3,227	78,054
1933-34 ..	367	61,627	3,616	97,273	3,249	35,646
1934-35 ..	388	150,703	4,511	135,072	4,123	—15,631
1935-36 ..	352	132,645	4,135	136,118	3,783	3,473
1936-37 ..	352	180,686	5,026	171,301	4,674	— 9,385

(a) Australian currency values.

NOTE.—The minus sign (—) signifies net imports.

§ 3. Cattle.

1. **Purposes for which Raised.**—Cattle-raising is carried out in all the States, the main object in certain districts being the production of stock suitable for slaughtering purposes, and in others the raising of profitable dairy herds. The great impetus which the development of the export trade in Australian butter gave to the dairying industry led to a considerable increase in numbers and an improvement in quality of the dairy herds in Victoria, New South Wales and Southern Queensland in particular, the portion of Australia in the temperate zone being the best adapted to this industry. On the other hand, beef-producing cattle are mainly raised in the tropical districts, i.e., in the northern parts of Queensland, in the Northern Territory, and in the Kimberley district in the north of Western Australia.

2. **Distribution throughout Australia.**—Until 1880, New South Wales occupied the leading position as a cattle-raising State, but in that year Queensland took first place, which it has since maintained. There was a very rapid increase in the number of cattle in Australia up to the year 1894, when 12,311,617 head were depastured. From 1895 onwards, however, the effects of droughts and the ravages of tick fever reduced the number to 7,062,742 in 1902. Following the disastrous drought which terminated in the latter year the herds were gradually built up, and, despite recurring droughts, they continued to increase until the maximum number of 14,441,309 cattle was attained in 1921. After that year the number again fluctuated, dropping almost continuously to 1929 owing to the decline in the overseas demand for frozen beef and occasional droughts particularly in Queensland, and recovering again during the next five seasons with the expansion of dairying a contributing factor.

The numbers of cattle, beef and dairy, in the several States and Territories during each of the last five years are as follows:—

CATTLE.—NUMBER.

31st Dec.	N.S.W. (a)	Vic. (a)	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Aus. Cap. Ter. (a)	Total.
1932	3,141,174	1,900,922	5,535,065	312,932	857,473	250,807	780,121	4,643	12,783,137
1933	3,301,771	2,002,235	5,781,170	352,728	885,660	262,256	850,867	6,700	13,512,486
1934	3,482,831	2,085,380	6,052,041	346,479	911,040	261,558	899,679	8,433	14,048,071
1935	3,388,536	2,091,240	6,033,004	335,354	882,761	270,035	900,535	10,186	13,911,659
1936	3,288,169	2,004,950	5,950,572	328,013	792,508	261,597	855,198	9,856	13,491,072

(a) 31st March, year following.

Although the proportion is not as high as it has been in the past, Queensland was carrying 44.11 per cent. of the cattle in Australia in 1936.

The largest relative gain since 1930 occurred in the Australian Capital Territory followed by Victoria, South Australia and the Northern Territory; increases were also recorded in the remaining States. The percentage in each of the States and Territories during 1936 was:—New South Wales, 24.37; Victoria, 14.87; Queensland, 44.11; South Australia, 2.43; Western Australia, 5.87; Tasmania, 1.94; Northern Territory, 6.34; Australian Capital Territory, 0.07.

3. **Comparison with other Countries.**—The following table shows the number of cattle in Australia and in some of the principal cattle-raising countries of the world at the latest available date:—

CATTLE.—NUMBERS IN VARIOUS COUNTRIES.

Country.	Year.	Number of Cattle (,000 omitted).	Country.	Year.	Number of Cattle (,000 omitted).
India (British and Native) ..	1935	161,381	Tanganyika Territory	1936	4,837
U.S. of America ..	1937	65,930	French Equatorial and West Africa	1935	4,734
Soviet Union ..	1937	50,900	Cuba ..	1935	4,651
Brazil ..	1935	40,514	Dutch East Indies..	1936	4,402
Argentine Republic	1937	33,101	New Zealand ..	1937	4,389
China ..	1935	22,647	Rumania..	1935	4,327
Germany..	1937	20,469	Yugoslavia ..	1936	4,074
France ..	1937	15,755	Ireland (Eire) ..	1937	3,955
Australia..	1936	13,491	Spain ..	1933	3,570
Union of South Africa	1936	11,081	Denmark ..	1937	3,084
Poland ..	1937	10,569	Sweden ..	1935	2,962
Mexico ..	1930	10,083	Paraguay ..	1935	2,920
Canada ..	1937	8,841	Rhodesia ..	1936	2,907
United Kingdom ..	1937	8,639	Venezuela ..	1929	2,750
Colombia..	1935	8,337	Nigeria ..	1936	2,750
Uruguay ..	1932	7,372	Sudan (Anglo-Egyptian) ..	1937	2,700
Italy ..	1937	7,287	Netherlands ..	1937	2,627
Turkey ..	1937	6,551	Uganda ..	1937	2,509
Siam ..	1937	5,618	Chile ..	1937	2,460
Kenya ..	1935	5,233	Austria ..	1934	2,349
Madagascar ..	1936	4,990	Bolivia ..	1931	2,064
Czechoslovakia ..	1937	4,930			

4. **Imports and Exports of Cattle.** The products of the cattle-raising industry figure largely in the export trade of Australia, although the export of live cattle has never been large. The number of cattle imported is also small, consisting, as in the case of horses, mainly of valuable animals for stud purposes. Details are as follows:—

CATTLE.—IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	No.	Value. (a)	No.	Value. (a)	No.	Value. (a)
		£		£		£
1932-33 ..	98	12,464	287	5,375	189	— 7,089
1933-34 ..	208	33,983	323	6,083	115	— 27,300
1934-35 ..	161	30,382	224	3,891	63	— 26,491
1935-36 ..	164	33,527	240	3,283	76	— 30,244
1936-37 ..	946	32,276	281	7,355	— 665	— 24,921

(a) Australian currency values.

Note.—The minus sign (—) signifies net imports.

The average value of the cattle imported during the last five years was £90 8s. 11d. per head, while the average value of the cattle exported during the same period was £19 12s. 5d. As previously stated, the imported cattle were required principally for stud purposes.

5. **Cattle Slaughtered.**—The number of cattle slaughtered during each of the years 1932 to 1936 is given hereunder :—

CATTLE (INCLUDING CALVES) SLAUGHTERED.

Year.	N.S.W. (a)	Victoria. (a)	Q'land.	S. Aust.	W. Aust.	Tas. (a)	N. Ter.	Aus. Cap. Ter. (a)	Total.
1932	704,646	427,644	596,975	89,350	91,359	30,335	1,899	1,506	1,943,714
1933	769,776	471,895	719,277	104,488	99,217	34,558	4,363	1,616	2,205,190
1934	974,749	593,248	851,393	140,170	110,124	37,581	4,358	1,791	2,713,414
1935	1,100,472	774,395	866,410	153,686	120,123	39,588	1,531	1,620	3,057,825
1936	1,186,476	904,889	1,040,980	166,168	124,214	46,718	4,814	2,339	3,476,808

(a) For year ended 30th June of year following.

6. **Production and Consumption of Beef.**—The production of beef in Australia during the year 1936-37 was estimated at 1,234,839,000 lb. The requirements of the local market absorbed 994,008,000 lb. or approximately 81 per cent., leaving a balance of 240,831,000 lb. or 19 per cent., which was exported as frozen, chilled or canned beef. (See also § 1 par. 10 *ante*.)

7. **Exports of Frozen Beef.**—The export of frozen meat from Australia dates from about the year 1881, and since that year the trade has grown considerably, the quantities and values exported during the past five years being as follows :—1932-33, 153,972,800 lb., £1,854,582; 1933-34, 173,076,092 lb., £2,020,050; 1934-35, 212,099,109 lb., £2,559,605; 1935-36, 196,823,248 lb., £2,481,896; and 1936-37, 233,851,658 lb., £3,036,239. Since 1932-33 chilled beef to the extent mentioned hereunder has been included in the foregoing. (See Table in § 1 par. 8.) The largest purchaser of Australian beef is the United Kingdom, which during the year 1936-37 took £2,755,883 worth, or about 90.8 per cent., of the total shipments. Other countries importing Australian beef were in order of importance Egypt, Malta, Malaya (British), Philippine Islands, Japan and Belgium; these countries, together with the United Kingdom, accounted for 98.4 per cent. of the total value of export.

Hitherto owing to the distance from the chief markets of the world it was possible to export meat from Australia in a frozen condition only, which circumstance placed the beef industry in Australia at a serious disadvantage in view of the preference for chilled beef. Investigations conducted by the Council for Scientific and Industrial Research in Australia and the Low Temperature Research Station at Cambridge in England proved, however, that chilled beef could be successfully transported from Australia to the United Kingdom. Trial shipments of 254,000 lb. were made during 1932-33 and 1,515,000 lb. in 1933-34. The success of these shipments indicated the practicability of Australia entering the chilled beef trade and exports increased during subsequent years in the following manner :—1934-35, 21,570,928 lb., £322,239; 1935-36, 23,193,737 lb., £348,047; and 1936-37, 41,869,695 lb., £608,175.

8. **Agreements Regarding Meat at the Ottawa Conference.**—A stimulus to the Australian meat industry was provided by the agreement at the Imperial Economic Conference at Ottawa in August, 1932, under the terms of which the Government of the United Kingdom undertook to regulate importations of foreign meat from 1st January, 1932.

This matter is more specifically referred to in § 2, par. 6 of Chapter XVI. "Trade".

9. Imports of Chilled and Frozen Beef into the United Kingdom.—The following statement shows the quantities and values of chilled and frozen beef imported into the United Kingdom during each of the five years 1933 to 1937:—

IMPORTS OF CHILLED AND FROZEN BEEF IN QUARTERS AND SIDES INTO THE UNITED KINGDOM.

Country of Origin.	1933.	1934.	1935.	1936.	1937.
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CHILLED—QUANTITY.

	cwt.	cwt.	cwt.	cwt.	cwt.
Brazil	517,022	509,103	508,512	508,653	496,818
Uruguay	560,392	560,997	561,560	544,921	583,487
Argentine Republic ..	6,951,833	6,942,113	6,937,141	7,100,114	6,987,234
Other Foreign Countries ..	..	..	..	..	..
British	142,073	238,445	478,336	617,303	903,900
Total Chilled ..	8,171,320	8,250,658	8,485,549	8,779,991	8,971,439

CHILLED—VALUE.

	£	£	£	£	£
Brazil	834,363	798,693	793,741	800,930	900,703
Uruguay	953,839	937,450	907,452	838,440	1,040,308
Argentine Republic ..	12,832,259	11,695,034	11,529,888	12,010,908	13,465,413
Other Foreign Countries ..	..	..	..	..	..
British	214,804	380,422	728,673	900,966	1,667,019
Total Chilled ..	14,835,265	13,811,605	13,959,754	14,560,259	17,088,443

FROZEN—QUANTITY.

	cwt.	cwt.	cwt.	cwt.	cwt.
United States of America ..	..	..	..	..	..
Brazil	5,333	5,473	11,245	3,421	7,873
Uruguay	27,815	40,050	41,071	35,021	53,795
Argentine Republic ..	113,910	97,234	93,933	113,666	112,340
Other Foreign Countries ..	..	..	..	..	1
Australia	947,142	1,322,855	1,104,511	1,055,786	1,328,821
New Zealand	431,007	697,140	404,758	277,900	247,050
Other British Countries ..	5,485	4,866	4,509	4,248	12,428
Total Frozen ..	1,530,692	2,168,524	1,720,927	1,490,942	1,762,317
Grand Total (Chilled and Frozen) ..	9,702,012	10,419,182	10,206,476	10,270,933	10,733,756

IMPORTS OF CHILLED AND FROZEN BEEF IN QUARTERS AND SIDES
INTO THE UNITED KINGDOM—*continued.*

Country of Origin.	1933.	1934.	1935.	1936.	1937.
FROZEN—VALUE.					
	£	£	£	£	£
United States of America ..	..	..	..	..	..
Brazil ..	7,327	7,635	17,417	5,230	12,170
Uruguay ..	42,901	63,800	78,018	62,127	94,295
Argentine Republic ..	181,307	153,758	159,524	172,843	200,303
Other Foreign Countries ..	..	..	..	..	2
Australia ..	1,212,096	1,660,554	1,481,103	1,317,389	1,973,788
New Zealand ..	510,518	824,611	606,849	344,007	364,264
Other British Countries ..	7,671	5,578	6,134	6,143	18,823
Total Frozen ..	1,961,820	2,715,936	2,349,045	1,907,739	2,663,645
Grand Total (Chilled and Frozen) ..	16,797,085	16,527,541	16,308,799	16,467,998	19,752,088

§ 4. Sheep.

1. **Initiation of the Pastoral Industry.**—Fortunately for Australia, the suitability of its climate and general conditions for the production of a high class of wool were, at an early date in the history of its settlement, surmised and tested by Captain Macarthur, one of the pioneer sheep-breeders of New South Wales. To the energy of this enterprising pastoralist is due in large measure the rapid and extremely satisfactory development of Australia as a producer of fine wool, and, while it would appear that the introduction of the merino sheep into Australia was not due to Macarthur, a great deal of the credit for having successfully established the pastoral industry in Australia must certainly be his.

2. **Distribution throughout Australia.**—With the exception of a short period in the early sixties, when the flocks of Victoria outnumbered those of the mother State, New South Wales has maintained the premier position in sheep-raising, and practically one-half of the sheep of Australia are in this State.

Fluctuations in the number of sheep recorded for each year in Australia from 1860 onwards may be seen from the graph on page 614. Five marked periods of decline depleted the numbers at successive intervals, but these losses were made up rapidly. In every year since 1925 the sheep flocks have exceeded 100 millions, reaching 113,048,037 in 1934, the greatest number ever recorded in Australia. At no previous period have such large numbers been depastured continuously, and the development has taken place notwithstanding an average annual slaughter of about eighteen million sheep and lambs for the mutton and lamb trade.

The numbers of sheep in the several States and Territories for each year from 1932 to 1936, together with estimate of the numbers at the 31st December, 1937, are shown in the table hereunder. It would appear from the estimate that the record of 1934 may be exceeded when the final figures for 1937 become available.

SHEEP.—NUMBER.

31st Dec.	New South Wales. (a)	Victoria. (a)	Queens-land.	South Australia.	Western Australia.	Tasmania.	Nor. Ter.	Aust. Cap. Ter. (a)	Total
1932	53,698,236	17,512,394	21,312,865	7,713,236	10,417,031	2,440,564	13,250	244,355	112,926,131
1933	52,104,000	17,195,969	20,072,804	7,941,060	10,322,350	2,035,052	18,076	231,742	109,921,053
1934	53,327,000	16,783,631	21,574,182	7,884,919	11,197,156	2,038,450	23,356	219,343	113,048,037
1935	51,936,000	17,457,291	18,060,093	7,945,745	11,082,372	2,139,990	25,173	228,377	108,575,801
1936	53,166,010	17,663,103	20,011,749	7,905,112	9,007,535	2,233,655	11,162	244,378	110,242,704
1937 ^b	52,800,000	18,863,467	22,497,970	8,904,402	8,717,780	2,200,000	10,000	243,000	111,286,610

(a) 31st March year following.

(b) Estimate as at 31st December, 1937.

3. **Proportion in the Several States and Territories.**—Apart from the effect of drought the relative numbers of sheep depastured in the different States remain fairly constant. The flocks of Western Australia were depleted in 1936 by drought, but the total for Australia increased by nearly $1\frac{1}{2}$ million owing to gains in the other States.

The percentage distribution in 1936 was:—New South Wales, 48.24; Victoria, 16.02; Queensland, 18.15; South Australia, 7.17; Western Australia, 8.17; Tasmania, 2.02; Northern Territory, 0.01; Australian Capital Territory, 0.22 per cent.

4. **Comparison with other Countries.**—As regards the size of its flocks and the quantity and quality of wool produced Australia has long occupied a leading position amongst the sheep-raising countries of the world. The following figures taken mainly from the *Year Book of the International Institute of Agriculture* represent the latest returns available in regard to the number of sheep in the principal wool-producing countries. The leading position is held by Australia, with 110 million, followed by the Soviet Union with 67 million, the United States of America with 53 million and India (British and Native), 43 million. On account of drought the number of sheep in the Union of South Africa dropped from 46 million in 1933 to 36 million in 1935, but the number increased to 40 million in 1936. In Argentine Republic sheep flocks also declined from 44.4 million in 1930 to 38 million in 1935, and likewise increased to 40 million in 1936. During the years 1925 to 1929 the sheep flocks of the Soviet Union exceeded those of Australia. The maximum number recorded was 130,000,000 in 1928, but after that year a remarkable decline took place and the number depastured in 1934 was only 46,848,000. It was proposed under the second Five Year Plan to increase the number to 85 million by 1937, but the total grew to only 66,600,000 inclusive of goats. Russian sheep are almost entirely coarse-woolled and the poor quality wool does not ordinarily figure in world trade. Efforts are being made, however, by the Soviet Government to improve

the quality of the wool and the quantity shorn per fleece by cross-breeding with merinos. In 1928-29 and 1929-30, 2,031 and 5,006 sheep, valued at £6,017 and £13,606 respectively, were exported from Australia to the Soviet Union for breeding purposes. As pointed out in par. 5 following, however, the export of stud sheep is subject to control. Production of wool in the Soviet Union apparently amounted to about 202.1 million lb. only during the year 1936. This represents an average weight of fleece shorn of under 3 lb., which is considerably less than half of that obtained in Australia :—

SHEEP.—NUMBERS IN VARIOUS COUNTRIES.

Country.	Year.	No. of Sheep (,000 omitted).	Country.	Year.	No. of Sheep (,000 omitted).
Australia	1936	110,243	Italy	1937	9,095
Soviet Union (a) ..	1937	66,000	Bulgaria	1926	8,740
United States of America	1937	52,918	Greece	1936	8,440
Argentine Republic	1937	43,790	Algeria	1936	6,267
India (British and Native)	1935	42,624	Chile	1936	5,752
Union of South Africa	1936	39,866	Bolivia	1931	5,232
New Zealand	1937	31,306	Iraq	1937	4,976
United Kingdom ..	1937	25,541	Germany	1937	4,684
China	1935	20,957	Mexico	1930	3,674
Spain	1933	19,093	Tunis	1936	3,532
Turkey	1937	16,449	Canada	1937	3,340
Iran	1934	16,019	Portugal	1934	3,274
Uruguay	1932	15,406	Kenya	1930	3,213
Brazil	1935	12,645	Poland	1937	3,182
Rumania	1935	11,838	Ireland (Eire) ..	1937	3,000
Peru	1929	11,209	Manchuria	1936	3,000
French Morocco ..	1937	10,373	Somaland	1936	2,500
France	1937	9,994	Sudan (Anglo- Egyptian)	1937	2,500
Yugoslavia	1936	9,568	Syria and Lebanon	1937	2,274
French Equatorial and West Africa	1935	9,488	Nigeria	1936	1,993
			Tanganyika Territory	1936	1,862

(a) Including goats.

5. **Oversea Imports and Exports of Sheep.**—As in the case of cattle, the overseas exports of live sheep from Australia are of comparatively little importance. During the last five years the principal consignments of ordinary sheep have been made to Malaya (British) from the State of Western Australia. The purchases by buyers from New Zealand, South Africa, Soviet Union and Japan at the Australian Stud Sheep Sales in previous years opened up a regular export trade with these countries in stud sheep. On the 27th November, 1929, however, the export of stud sheep was prohibited, except with the approval of the Minister for Trade and Customs. Consequently exports declined during 1931-32 and amounted to 297 sheep only, valued at £1,702, as compared with 6,389 valued at £32,933 in 1929-30. In 1936-37 exports of stud sheep amounted to 9,572 valued at £33,454, of which 9,082 sheep valued at £26,917 were shipped to Japan.

The ordinary flock sheep exported from Australia are, for the most part, consigned to Malaya and the Pacific Islands. The following table shows the imports and exports of stud and flock sheep for the years 1932-33 to 1936-37:—

SHEEP.—IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	No.	Value. (a)	No.	Value. (a)	No.	Value. (a)
		£		£		£
1932-33 ..	1,725	9,843	53,546	22,497	51,821	12,654
1933-34 ..	1,522	12,906	44,436	27,346	42,914	14,440
1934-35 ..	1,377	15,233	59,559	45,351	58,182	30,118
1935-36 ..	2,167	18,917	66,507	54,979	64,340	36,062
1936-37 ..	5,903	46,371	55,799	62,976	49,896	16,605

(a) Australian currency values.

6. *Sheep Slaughtered.*—The numbers of sheep slaughtered in the several States during each of the years from 1932 to 1936 were as follows:—

SHEEP (INCLUDING LAMBS) SLAUGHTERED.

Year.	N.S.W. (a)	Victoria. (a)	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Nor. Ter.	Aus. Cap. Ter.(a)	Total.
1932..	7,534,585	7,139,440	1,564,786	1,270,143	1,044,493	424,510	790	25,444	19,013,209
1933..	7,180,612	7,773,289	1,299,285	1,408,127	1,092,222	366,156	900	25,367	19,232,958
1934..	6,829,477	7,646,070	1,275,936	1,591,054	1,079,516	349,044	..	22,207	18,793,304
1935..	6,054,749	7,691,488	972,458	1,642,550	1,160,663	351,684	..	21,948	17,895,540
1936..	6,428,027	7,914,433	1,024,519	1,697,498	1,106,107	341,586	..	24,230	18,536,400

(a) Year ended 30th June, year following.

7. *Production and Consumption of Mutton and Lamb.*—The production of mutton and lamb during the year 1936-37 amounted to 697,344,000 lb., of which 486,560,000 lb. or 70 per cent. was consumed locally, leaving a balance of 210,784,000 lb. or 30 per cent. for exportation. (See also § 1 par. 10.)

8. *Exports of Frozen Mutton and Lamb.*—The export trade of mutton and lamb preserved by cold process expanded rapidly until 1913 when 205 million lb. were dispatched. Progress was interrupted during the war years and exports declined thereafter to a very low figure. The high wool prices which prevailed during the post war years were no doubt a factor in causing this decline. In 1919-20 and in 1922-23 large shipments were made aggregating 247 million lb. and 168 million lb. respectively, but these were isolated cases. Prior to 1923-24 the shipments consisted mainly of frozen mutton, but from that year onwards lamb supplanted mutton and there has been an almost uninterrupted increase in the quantity of lamb shipped overseas each year.

The quantity and value of the shipments of mutton and lamb during each of the last five years were as follows:—Lamb, 1932-33, 121,802,858 lb., £2,165,175; 1933-34, 124,755,938 lb., £2,893,138; 1934-35, 135,870,651 lb., £3,515,230; 1935-36, 151,377,838 lb., £4,020,163; 1936-37, 162,885,887 lb., £4,460,801. Mutton, 1932-33, 44,994,653 lb., £532,049; 1933-34, 46,351,359 lb., £682,705; 1934-35, 60,314,351 lb., £900,479; 1935-36, 26,629,544 lb., £445,589; 1936-37, 45,572,359 lb., £766,851.

As with beef, the principal customer in this trade is the United Kingdom, which absorbed 98 per cent. of the total quantity exported from Australia during the year 1936-37.

9. *Resolutions at Ottawa Conference.*—Reference has already been made to the agreement reached at the Imperial Economic Conference at Ottawa regarding the regulation of imports of meat into the United Kingdom. (See § 3 par. 8 *ante*.)

10. Imports of Frozen Mutton and Lamb into the United Kingdom.—The quantities and values of frozen mutton and lamb imported into the United Kingdom from various countries for the five years ended 1937 are given in the following table:—

IMPORTS OF FROZEN MUTTON AND LAMB INTO THE UNITED KINGDOM.

Country of Origin.	1933.	1934.	1935.	1936.	1937.
MUTTON—QUANTITY.					
	cwt.	cwt.	cwt.	cwt.	cwt.
Chile	140,282	82,258	89,326	95,759	94,327
Brazil	1,782	..	..	..	..
Uruguay	33,324	13,690	6,232	8,240	16,553
Argentine Republic ..	217,174	137,748	150,423	121,907	110,946
Other Foreign Countries ..	..	2,895	2,870	2,063	4,871
Total, Foreign ..	392,562	236,591	248,851	227,969	226,697
Australia	347,409	461,259	424,050	227,218	405,614
New Zealand	998,547	898,965	1,041,563	888,864	861,832
Other British Countries ..	1,763	..	..	350	4,582
Total, British ..	1,347,719	1,360,224	1,465,613	1,116,432	1,272,028
Grand Total ..	1,740,281	1,596,815	1,714,464	1,344,401	1,498,725

MUTTON—VALUE.					
	£	£	£	£	£
Chile	214,655	163,574	129,856	177,128	163,339
Brazil	2,412	..	..	..	..
Uruguay	54,863	23,260	10,635	13,915	28,341
Argentine Republic ..	348,525	261,398	223,070	219,105	202,407
Other Foreign Countries ..	..	4,744	3,984	3,204	8,762
Total, Foreign ..	620,455	452,976	367,545	413,682	402,849
Australia	513,354	845,228	693,878	422,096	726,344
New Zealand	1,612,378	1,716,799	1,754,720	1,616,778	1,637,168
Other British Countries ..	2,888	..	..	613	8,481
Total, British ..	2,128,620	2,562,027	2,448,598	2,039,487	2,371,993
Grand Total ..	2,749,075	3,015,003	2,816,143	2,453,169	2,774,842

IMPORTS OF FROZEN MUTTON AND LAMB INTO THE UNITED KINGDOM—
continued.

Country of Origin.	1933.	1934.	1935.	1936.	1937.
LAMB—QUANTITY.					
	cwt.	cwt.	cwt.	cwt.	cwt.
Iceland	15,236	..	..	..	..
United States	..	..	..	..	..
Chile	124,368	124,067	118,554	111,209	116,003
Brazil	9,929	..	..	..	..
Uruguay	138,637	124,702	130,176	117,888	148,408
Argentine Republic	929,420	783,868	754,827	778,176	778,986
Other Foreign Countries	..	27,641	28,561	37,236	38,006
Total, Foreign	1,217,590	1,060,278	1,032,118	1,044,509	1,081,463
Australia	956,948	1,165,848	1,360,158	1,272,046	1,477,348
New Zealand	2,736,546	2,655,611	2,591,399	2,641,880	2,741,204
Other British Countries	1,404	242	18	558	4,174
Total, British	3,694,898	3,821,701	3,951,575	3,914,484	4,222,726
Grand Total	4,912,488	4,881,979	4,983,693	4,958,993	5,304,189

LAMB—VALUE.					
	£	£	£	£	£
Iceland	38,718	..	..	..	..
United States	..	..	..	..	..
Chile	290,447	305,115	271,858	310,386	313,080
Brazil	20,421	..	..	..	..
Uruguay	314,292	311,953	327,257	316,441	418,157
Argentine Republic	2,151,109	2,051,554	1,898,688	2,091,908	2,179,907
Other Foreign Countries	..	67,008	77,642	101,211	108,090
Total, Foreign	2,814,987	2,795,630	2,575,445	2,825,946	3,019,243
Australia	2,395,193	3,320,004	3,034,003	3,707,390	4,351,242
New Zealand	7,435,731	8,414,183	8,003,990	8,200,051	8,754,457
Other British Countries	3,615	674	51	1,529	11,704
Total, British	9,834,539	11,735,821	11,998,740	11,974,970	13,117,403
Grand Total	12,649,526	14,531,451	14,574,185	14,800,916	16,136,646

§ 5. Wool.

1. **General.**—Australia is the leading wool-growing country in the world. With less than one-sixth of the world's sheep Australia produces one-quarter of the world's supply. Moreover, half of the world's production of fine quality merino wool is produced in Australia. The bulk of the production is exported, but with the greater activity of Australian woollen mills the quantity used locally is increasing; the amount so used represented 7 per cent. of the total production in 1936–37.

The important position held by Australia among the principal sheep and wool producing countries of the world is more clearly shown in the following table :

SHEEP AND WOOL.—PRINCIPAL PRODUCING COUNTRIES.

Country.	Year.	No. of Sheep (in millions).	Wool Production (in millions of lb., greasy).
Australia	1936-37	110.2	983
United States of America ..	1936-37	52.9	449
Soviet Union	1936-37	58.1	202
Argentine Republic..	1936-37	43.8	385
Union of South Africa ..	1936-37	39.9	272
New Zealand	1936-37	30.1	303

2. **Greasy and Scoured Wool.**—Whether the weight of the wool clip should be stated as “in the grease” or as “scoured or washed” is a matter which seriously affects comparisons between the clips of different seasons and of different countries. The quantity of extraneous matter and grease in a fleece differs, not only between countries, but between districts in the same country. It fluctuates with the vagaries of the season, while it varies also with the breed and the condition of the sheep. There is, moreover, no clearly defined standard in regard to the cleanliness of wool described as scoured or washed. Consequently, any comparisons of the weight of the Australian clip for different years or seasons whether on a greasy or a scoured basis cannot be regarded as exactly similar. After extensive inquiry, however, by this Bureau it has been accepted that, for the purpose of converting the Australian clip from the greasy to the clean category, the clean weight may be estimated at 46.15 per cent. of the greasy weight ; in other words, 2½ lb. of greasy wool are equivalent to 1 lb. of clean wool.

The quantity of scoured or washed Australian wool exported during the last five years was approximately 16 per cent. of the total wool exports regarded as “greasy”.

3. **Production.**—(i) *Quantity.* The bulk of the Australian wool production is shorn from live sheep. Approximately 6 per cent. is obtained by fellmongering and about 5 per cent. is on skins exported. Statistics of wool production are compiled from data received from growers, fellmongers, etc. The following table gives the production for each of the last five seasons, but the figures shown for 1937-38 have been estimated and therefore are subject to revision. Particulars of the gross value of wool produced in Australia are also shown ; these values are based upon the average price of greasy wool realized at auction in the principal markets of the Commonwealth :—

WOOL.—TOTAL PRODUCTION.

State.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.(c)
	lb.	lb.	lb.	lb.	lb.
New South Wales (a)	486,152,493	496,876,887	474,359,226	505,375,065	498,700,000
Victoria	161,146,436	156,761,979	163,397,896	163,048,510	179,400,000
Queensland ..	169,989,516	174,088,413	142,793,328	153,766,368	167,665,000
South Australia ..	79,288,903	77,790,933	81,709,440	76,604,296	85,500,000
Western Australia ..	85,118,808	95,836,161	92,458,673	69,935,210	64,700,000
Tasmania ..	14,200,000	14,035,000	16,300,000	14,067,000	14,000,000
Northern Territory (b)	35,000	35,000	35,000	35,000	35,000
Total—Quantity	995,931,156	1,015,424,373	971,953,503	982,531,119	1,010,000,000
	£	£	£	£	£
Value ..	63,037,000	40,446,000	55,186,000	63,585,782	52,600,000

(a) Including Australian Capital Territory.
Subject to revision.

(b) Approximate figures.

(c) Preliminary.

(ii) *Estimate for 1938-39.* No official information is yet available for the season ending June, 1939. In many parts the wool is not yet shorn. At the joint annual conference of the National Council of Wool Selling Brokers and the Australian Wool Growers Council, it was stated that the production was expected to approximate 2,970,000 bales. Should this estimate be realized the total production of wool in Australia for 1938-39 would approximate about 950,000,000 lb.

4. *Care Needed in Comparing Clips.*—In comparing successive clips allowance must be made for the circumstance that, owing to climatic or other conditions, the time of shearing may be so far delayed in some areas that one clip may include almost thirteen months' growth of wool, while the succeeding one may include little more than eleven months' growth.

5. *World's Wool Production.*—The following table gives details of the world's wool production and shows the importance of Australia as a wool-producing country. Out of a total production of 3,826.1 million lb. in 1936-37, Australia produced 982.8 million lb., or 25.7 per cent. It is also interesting to note that the share of the British Empire in world production during the same year was estimated at 1,819 million lb., or 47.5 per cent.

WOOL.—WORLD'S PRODUCTION.

(In millions of lb., "greasy" basis.)

Countries.	Average Annual Pre-war Production. (a)	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Australia ..	741.4	1,062.6	995.9	1,015.4	971.1	982.8
United States ..	314.1	440.5	459.8	451.0	452.7	448.0
Argentine Republic ..	358.7	388.0	382.0	370.0	366.0	385.0
Union of South Africa ..	165.9	330.0	284.0	222.0	250.0	272.0
Soviet Union (Russia)	380.0	143.0	136.0	128.0	158.4	202.1
New Zealand ..	198.5	277.1	289.6	265.0	304.3	302.9
Uruguay ..	157.0	111.0	93.0	112.0	110.0	113.0
China (b) ..	100.0	110.0	110.0	110.0	110.0	110.0
United Kingdom ..	134.0	119.0	120.0	115.0	109.0	108.0
India (b) ..	100.0	100.0	100.0	100.0	100.0	100.0
Spain ..	72.0	78.0	78.0	73.0	66.0	66.0
Rumania ..	13.2	43.3	43.3	43.0	42.9	42.9
Persia ..	12.1	(b) 49.0	(b) 49.0	(b) 49.0	(b) 49.0	(b) 49.0
France ..	80.7	53.8	53.6	52.8	52.7	53.9
Turkey ..	118.0	38.9	36.6	35.4	41.1	48.9
Italy ..	55.0	42.0	41.0	36.0	30.0	30.0
Algeria ..	35.2	39.3	39.0	41.0	43.0	47.0
Chile ..	17.4	33.7	34.6	37.0	35.2	33.5
Brazil ..	35.0	33.7	35.3	36.4	37.5	37.5
Germany ..	52.0	31.5	31.3	32.2	30.3	40.1
Yugoslavia ..	25.4	29.8	30.1	31.0	32.2	33.6
Canada ..	11.2	20.5	19.2	19.5	19.4	18.9
Morocco (French)	14.9	33.2	34.0	35.6	40.8	40.7
Bulgaria ..	23.7	20.7	20.9	21.3	21.1	20.4
Ireland (Eire) ..	..	19.6	19.6	17.0	16.5	17.0
Basutoland ..	..	11.8	9.9	5.1	7.3	6.0
Falkland Islands ..	..	3.9	4.0	4.0	4.2	4.0
Other Countries ..	71.2	193.9	194.6	199.3	208.2	211.7
Total ..	3,286.6	3,857.8	3,744.3	3,657.0	3,714.9	3,826.1

(a) Average for years 1909 to 1913 inclusive.

(b) Estimated.

6. **Consumption of Locally Processed Wool.**—It is impossible to obtain particulars of the total consumption of wool in Australia, as considerable quantities of manufactures of wool are imported. It is possible, however, to secure with reasonable accuracy the quantities of wool used in Australian factories and mills to produce woollen cloth and other woollen goods, such as hosiery and knitted ware. Some difficulties arise in the aggregation of returns from individual mills concerned only with one process in the manufacture of the completed article and whose output constitutes the raw material of other mills. It is believed, however, that the risk of duplication has now been reduced to a minimum and that the figures stated below can be accepted as substantially accurate. Reference is made to the woollen mills established in Australia in Chapter XXIV. "Manufacturing Industry".

In the following table particulars are given of the quantity of wool processed in Australian factories during each of the past ten years.

For reasons mentioned in § 5 par. 2 above, the factor used for converting wool in terms of scoured, tops, yarn, etc., to a greasy basis must be regarded as approximate.

CONSUMPTION OF LOCALLY PROCESSED WOOL IN AUSTRALIA.

(In terms of greasy.)

Year.			Quantity.			Year.			Quantity.		
			lb.						lb.		
1927-28	..	..	38,510,532			1932-33	..	..	65,343,392		
1928-29	..	..	44,481,718			1933-34	..	..	60,881,494		
1929-30	..	..	49,606,200			1934-35	..	..	55,753,478		
1930-31	..	..	35,200,996			1935-36	..	..	70,205,840		
1931-32	..	..	50,159,704			1936-37	..	..	71,579,920		

7. **Exports of Wool.**—(i) *Greasy—Quantities.* Of the total weight of greasy wool shipped overseas during the last five years 35 per cent. was sent to the United Kingdom, as compared with 38 per cent. dispatched in pre-war years. The other leading consignees since 1933-34 were Japan, 20 per cent.; Belgium 14 per cent.; France 11 per cent.; and Germany, 7 per cent. The balance of 13 per cent. was distributed among all other countries. The following table shows the quantities of "greasy" wool exported, and the principal countries of recorded destination:—

WOOL IN THE GREASE.—EXPORTS, AUSTRALIA.

Country to which Exported.	Average Five Years 1909-13.		1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	lb.	lb.					
United Kingdom	212,004,088	209,887,487	292,725,835	244,568,575	277,210,184	294,411,888	
Other British Countries	(a)	1,162,155	1,252,059	2,477,886	2,396,943	1,931,026	
Belgium	55,143,706	92,649,202	121,109,015	102,501,997	129,959,697	87,882,576	
France	149,835,946	65,017,851	75,760,166	64,692,287	76,063,696	123,835,665	
Germany	106,344,696	113,529,765	27,220,923	27,116,447	11,451,186	5,498,616	
Italy	4,381,197	58,549,566	17,094,730	4,593,392	35,77,546	29,577,600	
Japan	7,262,683	170,444,059	196,125,519	231,618,760	81,028,809	69,162,890	
Netherlands	(a)	3,270,646	16,450,416	15,296,631	8,798,135	7,084,535	
Poland	(a)	9,051,704	12,058,269	12,679,762	12,296,714	17,988,325	
United States of America	15,486,447	5,359,242	5,448,868	24,810,762	72,758,475	4,193,670	
Other Foreign Countries	6,382,577	6,902,103	16,878,821	13,722,139	27,494,760	31,521,901	
Total	556,841,340	735,823,780	785,784,621	751,887,602	759,174,375	721,826,953	

(a) Included with Other Foreign Countries.

(ii) *Scoured and Washed including Tops, Noils and Waste—Quantities.* The exports of "scoured and washed" wool including tops, noils and waste during the period shown were as follows:—

WOOL, SCOURED AND WASHED, INCLUDING TOPS, NOILS AND WASTE.—EXPORTS. AUSTRALIA.

Country to which Exported.	Average Five Years 1909-13. (a)	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	lb.	lb.	lb.	lb.	lb.	lb.
United Kingdom ..	32,032,577	34,245,804	36,713,150	33,670,787	34,770,657	30,951,063
Canada ..	(b)	3,483,351	3,270,402	4,226,701	5,227,850	4,686,416
Other British Countries ..	(b)	646,731	862,051	1,000,077	1,363,204	1,650,938
Belgium ..	7,528,058	14,710,178	10,733,900	10,826,486	8,701,786	5,115,651
France ..	16,068,910	5,863,131	9,843,830	10,835,868	7,668,430	8,238,396
Germany ..	12,310,967	11,213,776	2,879,686	3,927,532	3,561,744	2,772,248
Italy ..	265,442	2,638,595	1,073,491	213,531	593,359	310,170
Japan ..	1,888,161	2,863,132	2,027,420	1,814,949	474,775	605,954
Poland ..	(b)	1,526,107	1,187,583	2,003,013	812,765	555,721
Other Foreign Countries ..	252,995	1,515,761	4,392,352	5,378,311	9,134,695	6,687,941
Total ..	70,347,110	78,706,655	71,983,865	73,897,255	72,309,271	61,664,498

(a) Including "tops."

(b) Included with Other Foreign Countries.

(iii) *Total Value of Exports.* The total value of the wool exported from Australia during the five years ending 1937-38 averaged 42 per cent. of the value of the total exports of merchandise of local origin, but during 1937-38 the proportion was only 33 per cent. The total value during the periods under review together with the principal countries to which wool was exported is shown in the next table:—

WOOL EXPORTS.—TOTAL VALUE, AUSTRALIA.

Country to which Exported.	Average Five Years 1909-13.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£	£
United Kingdom ..	10,608,967	17,762,789	16,007,777	18,379,416	23,025,184	20,247,877
Other British Countries ..	(a)	526,133	409,286	657,572	948,495	634,619
Belgium ..	2,540,915	6,864,323	5,433,157	6,131,099	8,105,565	4,782,798
France ..	6,494,892	4,601,794	3,558,066	4,431,359	5,441,116	7,111,406
Germany ..	5,131,282	8,698,904	1,511,094	2,052,436	3,578,244	3,877,114
Italy ..	202,434	4,237,212	807,775	273,549	2,594,586	1,846,631
Japan ..	516,528	2,127,621	8,680,119	14,594,465	7,513,956	4,042,266
Netherlands ..	(a)	393,844	825,971	1,058,533	707,361	466,198
Poland ..	(a)	784,609	617,064	968,108	618,665	1,056,739
United States of America ..	795,328	485,840	352,466	2,102,066	7,039,771	391,356
Other Foreign Countries ..	290,356	642,457	1,063,165	1,661,958	2,541,424	2,326,557
Total ..	26,592,642	57,125,526	39,265,940	52,345,561	62,504,567	46,983,561

(a) Included with Other Foreign Countries.

8. *Exports and Local Sales of Wool.*—Approximately 90 per cent. of Australian wool is now disposed of locally. Buyers from the United Kingdom, France, Belgium, Germany and other European countries, and from America, Japan, China and India attend the sales conducted in Sydney, Albury, Melbourne, Geelong, Ballarat, Brisbane, Adelaide, Perth, Hobart and Launceston. Particulars regarding exports and local sales, as well as quantities and proportions of the various descriptions of wool marketed in each State, will be found in the Production Bulletins issued by this Bureau.

9. *Value.*—Wool is the chief factor in the pastoral wealth of Australia, and the nation's prosperity is largely dependent upon the satisfactory sale of the clip. The heavy decline in the price of wool which commenced in 1929-30 continued during the succeeding three years. In 1933-34, prices rose in a remarkable manner, averaging 15.84d. per lb., compared with 8.72d. per lb. for the previous year, an increase of 81.6 per cent. A decline in 1934-35 was succeeded by a period of rising prices in the two years

following, but in 1937-38 values again receded. The effect of fluctuating wool values upon the national income is reflected in the following figures. Based on the average auction room price of greasy wool the output for the season 1936-37 was valued at £63,586,000 compared with £55,186,000 in 1935-36. These values may be compared with £81,430,000 in 1924-25 when the record price was realized and £34,804,000 in the depression year 1930-31. On the average of the five seasons 1932-33 to 1936-37 the annual clip was valued at £52,171,000.

The value of the clip for 1937-38 is estimated at £52,600,000, but as complete details in regard to production are not yet available this figure is subject to revision.

The following table gives the average auction room price in Australia of greasy wool as compiled by the National Council of Wool-selling Brokers. This price represents the average price realized for all greasy wool of whatever type or quality marketed during the years indicated.

WOOL.—AVERAGE MARKET PRICE PER LB.

Description.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	d.	d.	d.	d.	d.	d.	d.
Greasy (a)	8.46	8.72	15.84	9.75	14.01	16.48	12.51

(a) National Council of Wool-selling Brokers.

Measured in terms of Australian, sterling and gold currencies the approximate values of greasy wool per lb. since 1929-30 were as follows:—

AVERAGE VALUE OF GREASY WOOL PER LB.—AUSTRALIA.

Year.	Australian Currency.	Sterling.	Gold Prices.
	d.	d.	d.
1929-30	10.29	10.29	10.29
1930-31	8.36	6.96	6.96
1931-32	8.46	6.69	5.10
1932-33	8.72	6.98	4.84
1933-34	15.84	12.65	8.19
1934-35	9.75	7.78	4.68
1935-36	14.01	11.19	6.79
1936-37	16.48	13.16	8.03
1937-38	12.51	9.99	6.15

The average values shown in sterling and gold currencies have been calculated by converting the average prices shown in Australian currency on the basis of the average rate of exchange between the months of September and June in each year. Though not exact these results will suffice for general purposes.

10. Wool Realization Scheme.—The affairs of the British-Australian Wool Realization Association have been liquidated and consequently references to its operations which appeared in previous Official Year Books are not repeated in this issue.

11. United Kingdom Importation of Wool.—The appended statement of the quantities and values of wool imported into the United Kingdom during the year 1936 from the principal wool-producing countries shows the important position which Australia occupied in the supply of wool to the Mother Country:—

WOOL (a).—IMPORTS, UNITED KINGDOM, 1936.

Country of Origin.	Quantity.	Value.	Country.	Quantity.	Value.
	lb.	£		lb.	£
Australia ..	347,763,700	19,670,119	Other British Possessions ..	2,699,300	262,475
New Zealand ..	233,594,600	9,358,333	Peru ..	1,106,400	122,700
Union of South Africa ..	109,834,600	5,024,468	Belgium ..	3,740,800	121,761
Argentine Republic ..	83,914,400	2,994,139	Falkland Islands ..	3,129,800	65,213
India ..	44,511,600	1,722,288	Germany ..	432,400	54,510
France ..	23,738,200	1,230,122	United States of America ..	909,200	27,642
Uruguay ..	29,925,800	2,046,922	Other Countries ..	6,495,600	276,926
Chile ..	9,987,200	482,321			
Ireland (Eire) ..	12,112,400	468,483	Total ..	913,896,000	43,928,422

(a) Greasy and Scoured.

Of the importations of wool into the United Kingdom, Australian wool represented 38 per cent. of quantity and 45 per cent. of value, and New Zealand 26 per cent. of quantity and 21 per cent. of value. Altogether, 753,646,000 lb., valued at £36,488,152, were received from British Possessions, these figures being equivalent to 82 per cent. of the total weight and 84 per cent. of the total value of all wool imported.

Preliminary figures show that during 1937, 783.8 million lb. of wool were imported into the United Kingdom; the chief sources of supply were Australia 301.7 million lb., New Zealand 180.6 million lb., Union of South Africa 97.3 million lb., and Argentine Republic 74.4 million lb., a total of 654.0 million lb. or 83 per cent.

12. Principal Importing Countries and Sources of Supply.—The following table furnishes in respect of the principal importing Countries details of their production and imports of wool, together with the chief sources of supply. The quantities imported refer to the actual weight of wool without distinguishing between greasy and scoured. They are also exclusive of any wool imported on skins.

WOOL.—PRINCIPAL IMPORTING COUNTRIES AND SOURCES OF SUPPLY.

(In millions of lb.)

Importing Country.	Production(a) of Importing Country.	Quantity Imported from—					Total Imports.
		Australia.	Union of South Africa.	Argentine Republic.	New Zealand.	Other Countries.	
United Kingdom ..	108.0	347.8	109.8	83.9	233.6	138.8	913.9
Belgium ..	0.7	137.8	18.1	24.3	8.4	58.3	240.9
Czechoslovakia ..	1.9	9.1	0.5	2.0	1.9	31.2	44.7
France ..	53.9	144.1	69.0	56.9	45.0	38.6	353.6
Germany ..	40.1	37.5	43.6	35.5	7.6	103.5	227.7
Italy ..	30.0	6.1	4.9	11.4	..	19.9	42.3
Japan ..	..	154.7	18.6	7.5	23.7	12.5	217.0
Poland ..	11.5	21.7	4.2	6.2	8.3	10.6	51.0
Spain ..	66.0	(b)	(b)	(b)	(b)	(b)	(b)
Soviet Union ..	202.1	6.0	..	..	..	51.1	57.1
United States of America ..	448.6	32.0	4.0	60.3	26.5	130.5	253.3
Total ..	..	896.8	272.7	288.0	355.0	595.0	2,407.5

(a) As in the grease.

(b) Not available.

In connexion with the total imports shown in the above table, it should be noted that a considerable transit trade exists between continental countries. It must not be assumed, therefore, that the whole of the imports recorded by these countries are retained for their own consumption. The countries chiefly concerned with this transit trade are United Kingdom, Belgium, France and Germany. The quantities re-exported during 1936 were:—United Kingdom, 277.0 million lb., or 30.3 per cent. of the total imports; Belgium, 106.2 million lb., or 43.0 per cent.; France, 64.4 million lb., or 18.2 per cent.; and Germany, 0.8 million lb., or .35 per cent.

13. **Inquiry into Wool Industry**—(i) *General*. A Committee was appointed by the Commonwealth Government on the 15th August, 1932, to inquire into and report on the condition of the Australian Wool Industry. The report of the Committee was presented on the 24th November, 1932. The inquiry covered costs of production, prices, etc., and recommendations were made for the rehabilitation of the industry. For fuller details see Official Year Book No. 29, page 644.

§ 6. Trade in Hides and Skins.

1. **Extent of Trade**.—In addition to the hides and skins treated locally, considerable quantities are exported; the value of cattle and horse hides, and sheep and other skins sent overseas during the five years 1932-33 to 1936-37 amounted to £23,219,234, or an average of £4,643,847 per annum.

2. **Sheepskins with Wool**.—The exports of sheepskins with wool aggregating £12,224,309 during the five years constitute the largest item in the values referred to in the preceding paragraph. During the year 1936-37 France was the largest purchaser, taking 59 per cent. of the total consignments, while the United Kingdom ranked next with 23 per cent., followed by United States, with 11 per cent. The exports of sheepskins with wool during each of the years from 1932-33 to 1936-37 were as follows:—

SHEEPSKINS WITH WOOL.—EXPORTS, AUSTRALIA.

Particulars.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Number ..	10,448,928	11,478,513	10,765,364	11,811,480	12,130,265
Value £	1,382,583	2,627,389	1,772,595	2,805,083	3,636,659

3. **Sheepskins without Wool**.—Sheepskins without wool are exported chiefly to the United States of America, this country taking 65 per cent. of the shipments in 1936-37. Quantities and values for the last five years are given in the table hereunder:—

SHEEPSKINS WITHOUT WOOL.—EXPORTS, AUSTRALIA.

Particulars.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Number ..	146,564	177,814	247,050	255,636	1,543,713
Value £	3,914	13,384	11,768	19,370	169,250

4. **Hides**.—(i) *Exports*. The export trade in cattle hides, which fell away during the depression years, has again become important. The consignments in 1936-37 were distributed as follows:—United Kingdom, £368,898; Japan, £130,387; Germany, £77,978; Finland, £46,097; Italy, £28,357; Canada, £68,100; Other Countries, £214,207.

The exports during the last five years are given in the table below:—

CATTLE HIDES.—EXPORTS, AUSTRALIA.

Particulars.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Number ..	450,857	482,339	690,578	807,604	1,034,937
Value £	292,841	369,927	417,071	613,717	940,024

Calfskins exported during the years 1932-33 to 1936-37 numbered 2,150,726 valued at £524,485 and were shipped mainly to the United States of America, the value of the skins taken by that country averaging 49 per cent. of the total exports during the year 1936-37. The annual export of horse hides is very small, and averaged only 6,240 hides valued at £3,330.

(ii) *Imports.* The imports of cattle hides and calfskins are fairly large, the average annual value during the last five years amounting to £285,093. New Zealand is the chief source of supply, and small quantities are obtained also from the Pacific Islands, France and Italy. The quantities and values of cattle hides, including calfskins, imported into Australia during the years 1932-33 to 1936-37 were as follows:—

CATTLE HIDES.—IMPORTS, AUSTRALIA.

Particulars.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37
Quantity cwt.	76,529	64,447	90,703	64,902	47,705
Value (a) £	250,569	288,125	336,872	301,217	248,848

(a) Australian currency values.

The number of horse hides imported into Australia is small. The value of imports during 1936-37 amounted to £73 in Australian currency.

5. *Other Skins.*—The exports of skins other than those mentioned in the preceding paragraphs were valued as follows:—

OTHER SKINS.—EXPORTS, AUSTRALIA.

Description.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
	£	£	£	£	£
Rabbit and Hare	460,182	953,901	870,221	1,744,834	1,049,412
Opossum ..	29,177	7,832	134,044	18,938	375,152
Kangaroo ..	74,389	175,597	159,571	220,460	125,033
Fox ..	105,356	168,034	50,232	61,943	80,390
Wallaby ..	6,826	30,325	12,051	12,863	25,789
Other ..	2,238	6,779	4,583	5,960	15,458
Total ..	678,168	1,342,468	1,236,702	2,073,953	2,271,234

These skins were shipped principally to the United States of America and the United Kingdom, the values taken by each during 1936-37 being as follows:—

OTHER SKINS.—EXPORTS TO UNITED STATES AND UNITED KINGDOM, 1936-37.

Description.	United Kingdom.	United States of America
	£	£
Rabbit and Hare	208,609	1,429,038
Opossum	343,735	31,050
Kangaroo	2,759	122,250
Fox	68,097	9,875
Wallaby	7,421	18,064
Other	3,997	3,783
Total	634,618	1,614,066

CHAPTER XX.

AGRICULTURAL PRODUCTION.

NOTE.—Except where otherwise stated, the "agricultural" years hereafter mentioned are taken as ending on 30th June.

§ 1. Introductory.

A brief reference to the attempts at cultivation by the first settlers in New South Wales and to the discovery of suitable agricultural land on the Parramatta and Hawkesbury Rivers prior to the year 1813 and west of the Blue Mountains thereafter is contained in early issues of the Official Year Book of the Commonwealth of Australia. (See No. 22, p. 670.)

§ 2. Progress of Agriculture.

1. **Early Records.**—In an "Account of Live Stock and Ground under Crop in New South Wales, 19th August, 1797." Governor Hunter gives the acreage under crop as follows:—Wheat, 3,361 acres; maize, 1,527 acres; barley, 26 acres; potatoes, 11 acres; and vines, 8 acres.

At a muster taken in 1808 the following was the return of crops:—Wheat, 6,874 acres; maize, 3,389 acres; barley, 544 acres; oats, 92 acres; peas and beans, 100 acres; potatoes, 301 acres; turnips, 13 acres; orchards, 546 acres; and flax and hemp, 37 acres.

By the year 1850 the area under crop had increased to 491,000 acres, of which 198,000 acres were cultivated in what is now the State of New South Wales, and 169,000 acres in Tasmania. At the end of 1850 the area under cultivation in Victoria, which was then the Port Phillip District of New South Wales, was 52,190 acres.

The gold discoveries of 1851 and subsequent years had at first a very disturbing effect on agricultural progress, the area under crop declining from 491,000 acres in 1850 to 458,000 acres in 1854. The demand for agricultural products occasioned by the large influx of population was, however, soon reflected in the increased area cultivated, for at the end of 1858 the land under crop in Australia exceeded a million acres. The largest increase took place in Victoria, which returned an area of 299,000 acres. For the same year South Australia had 264,000 acres in cultivation, Tasmania 229,000 acres, and New South Wales, 223,000 acres.

2. **Progress of Cultivation.**—The following table shows the area under crop in each of the States and Territories of Australia at decennial intervals since 1860 and during each of the last five seasons:—

AREA UNDER CROP.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania	Nor. Ter.	Aus. Cap. Ter.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1860-1	246,143	387,283	3,353	359,284	24,705	152,860	..	..	1,173,628
1870-1	385,151	692,840	53,210	801,571	54,527	157,410	..	..	2,143,700
1880-1	606,277	1,548,809	113,978	2,087,237	83,902	140,788	..	..	4,560,991
1890-1	852,704	2,034,955	224,993	2,093,515	69,678	157,376	..	..	5,430,221
1900-1	2,446,767	3,114,132	457,397	2,360,680	201,338	224,352	..	..	8,813,066
1910-11	3,388,017	3,092,070	669,114	2,791,331	230,021	270,000	..	..	11,200,553
1920-21	4,168,143	4,188,503	774,413	3,001,631	1,211,385	297,153	1,376	1,376	13,209,588
1930-31	6,811,247	6,715,660	1,144,216	5,426,075	4,792,017	267,632	1,550	5,419	25,163,816
1932-33	6,332,716	5,115,745	1,245,638	5,166,656	4,261,047	270,117	1,045	6,525	22,408,489
1933-34	6,253,951	5,269,713	1,313,137	4,075,885	4,213,160	288,300	1,300	6,160	22,154,337
1934-35	5,087,085	5,077,083	1,296,619	4,029,388	3,845,615	293,000	1,132	5,156	20,428,299
1935-36	5,335,381	4,138,761	1,334,090	4,441,103	3,711,185	311,279	1,370	4,330	19,971,032
1936-37	5,957,520	4,407,312	1,506,423	4,577,707	3,884,349	263,251	1,305	4,728	20,602,595

The progress of agriculture was practically uninterrupted from 1860 to 1915-16, when, as the result of a special effort to raise wheat for the Allied Cause, 18,528,234 acres were cultivated in Australia. Four years later the area under crop was down to 13,296,407 acres owing to the accumulation of wheat stocks consequent upon the

difficulty of securing freight space during the war years. After the termination of hostilities the area again began to expand and rose steadily to a new maximum of 25,163,816 acres in 1930-31. Thereafter the slump in wheat prices seriously depressed the agricultural industry and the area under crop receded to less than 20 million acres in 1935-36. In 1936-37 there was an increase of more than half a million acres to 20,602,595 acres. Wheat is the most extensively grown crop in Australia and material changes in the total area under crop are largely a reflection of variations in the acreage sown to this cereal.

3. **Artificially-sown Grasses.**—In all the States there are considerable areas under artificially-sown grasses mainly sown on uncultivated land after burning off the scrub, and not included in "area under crops." These areas are, however, liable to revert to their natural state, and the information respecting them is too uncertain for formal record.

4. **Australian Agricultural Council.**—Arising out of a conference of Commonwealth and State Ministers on agricultural and marketing matters held at Canberra in December, 1934, a permanent organization known as the Australian Agricultural Council was formed. The Council consists of the Federal Minister for Commerce, the Federal Minister in charge of Development and the State Ministers of Agriculture, with power to co-opt the services of other Federal and State Ministers as required. The principal functions of the Council are (i) the promotion of the welfare and development of agricultural industries generally; (ii) the improvement of the quality of agricultural products and the maintenance of high grade standards; (iii) to ensure, as far as possible, balance between production and available markets; and (iv) organized marketing, etc.

In addition a permanent technical committee known as the Standing Committee on Agriculture was formed to act in an advisory capacity to the Council and to undertake the following duties:—(i) to secure co-operation and co-ordination in agricultural research throughout Australia; (ii) to advise the Commonwealth and State Governments, either directly or through the Council, on matters pertaining to the initiation and development of research on agricultural problems; and (iii) to secure co-operation between the Commonwealth and States and between the States themselves, with respect to quarantine measures relating to pests and diseases of plants and animals, and to advise the Commonwealth and State Governments with respect thereto. The personnel of this Committee consists of the permanent heads of the State Departments of Agriculture, members of the Executive Committee of the Council for Scientific and Industrial Research, and the Secretary of the Department of Commerce.

§ 3. Distribution, Production and Value of Crops.

1. **Distribution of Crops.**—The following table gives the areas in the several States under each of the principal crops for the season 1936-37:—

DISTRIBUTION OF CROPS, 1936-37.

Crop.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Aus. Cap. Ter.	Aus- tralia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Wheat ..	3,982,861	3,303,827	2,836,118	3,058,452	3,575,282	21,317	..	1,466	12,316,862
Oats ..	235,817	381,009	7,932	414,723	463,129	21,953	..	238	1,524,861
Maize ..	116,286	20,115	181,266	..	38	..	..	5	317,710
Barley —									
Malting ..	6,448	83,802	4,319	264,286	28,412	6,530	..	..	393,797
Other ..	5,556	16,201	2,333	40,273	11,080	417	..	..	76,460
Beans and Peas ..	17	7,780	689	18,215	3,558	17,898	..	..	48,157
Rye ..	6,325	1,185	27	2,282	131	206	..	..	10,156
Other Cereals ..	23,357	..	..	98	79	330	..	..	23,864
Hay ..	747,927	1,181,612	62,758	539,127	478,099	89,394	..	1,959	3,100,876
Green Forage ..	645,713	102,744	420,782	736,548	284,676	24,742	..	836	1,625,041
Grass and other Seeds ..	(a)	9,406	8,089	4,359	220	1,811	..	..	23,885
Orchards and other Fruit Gardens ..	87,887	76,760	28,828	29,755	22,143	32,285	..	66	277,724

(a) Not available.

DISTRIBUTION OF CROPS 1936-37—continued.

Crop.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Aus. Cap. Ter.	Australia.
Vines—	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Productive ..	14,984	38,329	1,944	52,679	5,125	..	..	..	113,061
Unproductive ..	1,558	3,566	557	3,443	980	..	..	..	10,104
Market Gardens	7,335	20,790	1,105	1,499	3,399	752	..	48	34,928
Sugar Cane—									
Productive ..	10,231	..	245,918	..	..	..	..	..	256,149
Unproductive ..	10,190	..	92,768	..	..	..	..	..	102,958
Potatoes ..	24,909	45,627	13,448	4,657	4,324	36,967	..	83	130,020
Onions ..	112	5,969	1,046	507	94	7	..	6	7,721
Other Root Crops	3,679	4,795	5,318	729	206	7,055	..	4	21,876
Tobacco ..	811	5,492	3,973	102	1,041	113	..	..	11,572
Broom Millet ..	3,358	1,250	776	..	..	..	..	..	5,384
Pumpkins and Melons ..	4,486	1,469	2,111	367	624	40	..	5	28,202
Hops ..	..	142	..	..	14	962	..	..	1,118
Cotton ..	..	..	62,200	..	..	..	..	..	62,200
All other Crops	17,630	5,382	46,438	5,601	1,004	472	1,305	7	77,889
Total Area ..	5,957,520	4,407,312	1,506,423	4,577,707	3,884,349	263,251	1,305	4,728	20,602,595

2. **Relative Areas of Crops in States and Territories.**—Taking the principal crops, i.e., those cultivated to the extent of over 100,000 acres, the proportion of each in the various States and Territories on the total area under crop for the season 1936-37 is shown in the next table. In four of the States, viz., New South Wales, Victoria, South Australia and Western Australia, wheat-growing for grain is by far the most extensive whilst hay is second in extent. In Victoria, South Australia and Western Australia the oat crop occupies third position, while green forage ranks third in New South Wales. In Queensland the most extensive crops are green forage, sugar-cane, wheat and maize, and in Tasmania hay, potatoes, orchards and fruit gardens, and green forage occupy the greatest area.

As pointed out previously wheat is the main crop in Australia, the area thereunder for grain and hay representing 64 per cent. of the total area under cultivation in 1936-37.

RELATIVE AREAS UNDER CROP, 1936-37.

[illegible]

3. **Area under Chief Crops, Australia.**—The area under the chief crops during each of the last five seasons, together with the average for the decennial period 1918-27 is shown hereunder :—

AREA UNDER CHIEF CROPS.—AUSTRALIA.

Crop.	Average, 1918-27.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
	1,000 acres.	1,000 acres.	1,000 acres.	1,000 acres.	1,000 acres.	1,000 acres.
Barley (a)	231	400	410	395	486	391
Maize	309	228	304	295	298	318
Oats	924	1,027	1,374	1,562	1,564	1,525
Rice	..	22	20	22	22	23
Wheat	9,499	15,766	14,901	12,544	11,957	12,317
Green Forage	758	1,087	1,121	1,234	1,423	1,625
Hay	2,956	2,727	3,081	3,178	3,007	3,101
Beans and Peas	44	52	71	51	52	48
Onions	7	9	8	7	7	8
Potatoes (b)	134	147	140	131	125	130
Sugar Beet	1.6	3	3	3	3	3
Vineyards	94	114	116	117	119	123
Hops	1.6	1	1	1	1	1
Sugar Cane	219	307	329	322	335	359
Cotton	28	56	87	78	55	62
Tobacco	2	26	16	8	11	12
Market Gardens (c)	43	46	51	53	55	62
Orchards	274	274	282	278	271	276
All Other Crops	102	116	139	150	183	214
Total	15,630	22,468	22,454	20,429	19,974	20,603

(a) Malting only. (b) Not including Sweet Potatoes. (c) Including Pumpkins and Melons.

4. **Total and Average Production, Chief Crops, Australia.**—The following table shows the production of the chief crops for the five years ended 1936-37 and for the decennium 1918-1927 :—

TOTAL AND AVERAGE PRODUCTION, CHIEF CROPS.—AUSTRALIA.

Crop.	Unit of Quantity.	Average, 1918-27.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Barley (a)	1,000 bushel	4,397	7,837	7,014	6,991	8,413	6,383
Maize	..	7,996	5,066	7,494	8,101	7,468	7,246
Oats	..	14,052	16,160	16,922	16,906	18,721	16,662
Rice	..	294	1,991	2,172	1,888	2,164	2,277
Wheat	..	118,558	213,927	177,338	133,393	144,218	151,390
Hay	.. ton	3,593	3,571	3,583	3,811	3,498	3,448
Beans and Peas	.. bushel	709	1,000	1,057	721	616	778
Onions	.. ton	36	49	52	42	35	53
Potatoes (b)	..	316	384	328	286	323	401
Sugar (Beet)	..	2.0	5.7	5.3	5.0	5.1	4.2
Grapes	..	197	410	362	361	364	409
Wine	.. gallon	11,884	16,418	13,996	16,265	17,728	20,168
Raisins and Currants	.. cwt.	583	1,540	1,370	1,335	1,281	1,469
Hops	.. lb.	2,197	1,669	1,953	2,065	2,403	2,376
Sugar (Cane)	.. ton	374	533	660	641	647	598
Cotton, Unginned	.. lb.	6,303	6,270	17,718	26,924	20,788	19,194
Tobacco	..	1,790	9,723	4,348	3,113	5,557	5,198
Pumpkins and Melons	.. ton	46	38	54	54	62	66

a) Malting only.

(b) Not including Sweet Potatoes.

5. **Average Yield per Acre, Chief Crops, Australia.**—Details of the average yield per acre for Australia of the principal crops are shown hereunder for the periods indicated:—

AVERAGE YIELD PER ACRE, CHIEF CROPS.—AUSTRALIA.

Crop.	Unit of Quantity.	Average, 1918-27.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Barley (a)	 bushel	18.80	19.60	17.09	17.69	17.31	16.20
Maize	 "	25.91	22.20	24.67	27.46	25.09	24.56
Oats	 "	15.21	15.73	12.32	10.83	11.97	10.93
Rice	 "	49.87	86.30	107.36	88.84	99.64	97.30
Wheat	 "	12.48	13.57	11.90	10.63	12.06	12.29
Hay	 ton	1.21	1.31	1.16	1.20	1.16	1.11
Beans and Peas	 bushel	16.26	19.14	14.97	14.02	11.95	16.16
Onions	 ton	5.43	5.53	6.35	5.97	4.95	6.81
Potatoes (b)	 "	2.59	2.61	2.35	2.19	2.59	3.55
Sugar (Beet)	 "	1.26	1.80	1.64	1.63	1.62	1.20
Grapes (c)	 "	2.03	3.78	3.31	3.30	3.29	3.62
Wine (c)	 gallon	313	341	296	342	364	411
Raisins and Currants (c)	 "	19.49	29.02	25.00	24.52	23.43	26.20
Hops (c)	 lb.	1,400	1,753	2,001	2,173	2,388	2,243
Sugar (Cane) (c)	 ton	2.23	2.50	2.80	2.83	2.71	3.06
Cotton, Unginned (c)	 lb.	222	209	260	620	378	309
Tobacco	 "	796	426	291	392	527	449
Pumpkins and Melons	 ton	3.45	2.54	2.84	2.91	3.02	2.34

(a) Malting only.

(b) Not including Sweet Potatoes.

(c) Per acre of productive crops.

6. **Gross Value of Agricultural Production, Australia.**—The following table shows the gross value of recorded agricultural production at the principal markets in each State for the years 1931-32 to 1936-37:—

GROSS VALUE OF AGRICULTURAL PRODUCTION.—AUSTRALIA.

Crops.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000
Barley (a)	829	911	884	984	1,036	1,326
Maize	1,193	1,234	1,277	1,298	1,010	1,785
Oats	1,448	1,559	1,853	1,040	2,136	2,282
Rice	297	352	392	383	409	458
Wheat	33,728	33,316	27,897	24,738	29,768	49,471
Green Forage	2,642	3,046	2,540	2,435	2,703	2,784
Hay	8,145	9,520	10,265	10,587	10,061	12,104
Beans and Peas	220	302	234	194	165	258
Onions	253	218	230	311	297	250
Potatoes (b)	2,073	1,791	1,905	2,191	2,561	2,165
Sugar Beet	86	73	91	76	77	65
Grapes	3,495	3,918	3,674	3,562	3,754	4,233
Hops	144	128	142	153	172	171
Sugar Cane	7,649	7,098	7,601	7,310	7,493	8,742
Tobacco	1,115	961	340	257	484	437
Cotton, Unginned	308	125	283	397	376	330
Market Gardens (c)	2,152	1,965	2,029	2,136	2,240	2,330
Orchards	7,030	7,414	7,082	7,343	7,702	8,508
Other Crops	1,682	1,640	2,013	1,994	2,335	2,704
Total, Gross Value	74,489	75,562	70,732	68,587	75,388	91,403

(a) Malting only.

(b) Not including Sweet Potatoes.

(c) Including Pumpkins and Melons.

7. **Value of Production—Gross and Net.**—In issues of the Official Year Book up to No. 27 the gross, local and net values of agricultural production were shown for each of the years 1926-27 to 1932-33, computed in accordance with resolutions of the several Conferences of Australian Statisticians. It was apparent, however, that the

methods used in the various States were not in complete harmony and at the Conference held in March, 1935, attention was directed to the elimination of any existing differences in computation. The success achieved at that Conference makes it possible to present the value of agricultural production for 1933-34 and subsequent years on a basis of uniformity not hitherto attained. Sufficient time has not elapsed to enable the State Statisticians to carry this revision back to 1925-26 as is intended and consequently it is possible to publish results for the last four years only. A more detailed reference to the value of production of agriculture and other industries in Australia as well as a brief explanation of the terms used will be found in Official Year Book, No. 30, p. 953.

In computing the net value of production no deduction has been made for the cost of maintenance of farm buildings and fences, or for the depreciation of farm machinery; consequently the figure stated is inflated to this extent.

GROSS, FARM AND NET VALUE OF AGRICULTURAL PRODUCTION.—AUSTRALIA, 1933-34 TO 1936-37.

(AS ESTIMATED BY STATE STATISTICIANS IN ACCORDANCE WITH CONFERENCE RESOLUTIONS.)

State.	Gross Production valued at Principal Markets.	Marketing Costs.	Gross Production valued at Farm.	Farm Costs.			Net Value of Production. (a)	Depreciation.
				Seed used, and Fodder for Farm Stock.	Value of other Materials used in process of production.			
	£	£	£	£	£	£	£	£
New South Wales ..	28,079,000	4,663,000	23,416,000	3,325,000	727,000	19,364,000		904,000
Victoria ..	24,038,124	3,217,320	20,820,804	3,432,210	1,032,253	16,356,341		824,000
Queensland ..	13,557,000	1,006,000	12,551,000	1,030,000	815,000	10,706,000		610,000
South Australia ..	13,021,815	1,346,957	11,674,858	1,858,414	759,038	9,057,406		557,611
Western Australia ..	9,435,736	1,276,912	8,158,824	1,439,437	798,279	5,921,108		580,079
Tasmania ..	3,165,300	761,670	2,403,630	567,600	127,400	1,708,630		70,600
Total—								
1936-37 ..	91,296,075	12,271,859	79,025,116	11,652,661	4,258,970	63,113,485		3,546,290
1935-36 ..	75,102,654	11,565,632	63,537,022	10,769,040	4,328,089	48,438,993		3,514,894
1934-35 ..	68,439,685	11,842,411	56,597,274	9,003,817	4,457,259	43,136,198		3,497,623
1933-34 ..	70,670,428	13,606,575	57,063,853	8,459,625	4,911,958	43,692,270		3,374,295

(a) No deduction has been made for depreciation and maintenance.

§ 4. Wheat.

1. Royal Commission on the Wheat Industry.—A Royal Commission was appointed in January, 1934, to inquire into and report upon the economic condition of the industries of growing, handling and marketing wheat, and the manufacturing, distributing and selling of flour and bread. A searching inquiry was made by the Commission and the results of its investigations were submitted in a series of five reports. The first and second reports covered the wheat growing industry, the third, that of baking, the fourth, the flour milling industry, while the fifth, completed in February, 1936, dealt with the history of the Commission's investigations and traversed the principal recommendations submitted.

Reference to the financial assistance to the wheat industry will be found in § 18, Bounties hereafter.

2. Progress of Wheat-growing.—(i) *Area and Production.* (a) *Seasons 1932-33 to 1937-38.* Wheat is the principal crop raised in Australia, and its progress since 1860 has been almost continuous. Prominent features in its early development were the increase in population following the discovery of gold and the redistribution of labour after the surface gold had been won. The economic depression of 1893 interrupted its

progress but its subsequent recovery was assisted by the invention of mechanical appliances, the recognition of superphosphate as an aid to production, and the introduction of new and more suitable varieties for Australian conditions. The establishment of closer settlement schemes and the settling of returned soldiers and others on the land were additional factors in its expansion. The continued progress was interrupted by the Great War and the recent economic depression. As previously mentioned, any change in area sown to this cereal dominates the changes in the total area under crop. The area and yield of wheat for grain are given below for each State for the five years ended 1936-37; the table includes an estimate for the 1937-38 crop and the average for the decennium ended 1936-37 is also inserted:—

WHEAT.—AREA AND PRODUCTION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Aust. Cap. Ter.	Australia.
AREA.								
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1932-33 ..	4,803,943	3,230,955	250,049	4,066,782	3,389,352	20,985	3,438	15,765,504
1933-34 ..	4,584,092	3,052,932	232,053	3,821,795	3,183,216	24,097	3,087	14,901,271
1934-35 ..	3,892,766	2,458,583	221,729	3,188,225	2,704,373	16,656	1,844	12,544,178
1935-36 ..	3,851,373	2,323,753	239,631	2,989,490	2,540,696	10,404	1,619	11,956,066
1936-37 ..	3,982,864	2,393,827	283,648	3,058,457	2,575,283	21,317	1,466	12,316,862
1937-38 (u) ..	4,416,000	2,686,000	373,000	3,162,000	3,026,000	21,000	2,000	13,886,000
Average for ten seasons 1928- 37.. ..	4,102,704	3,197,533	238,547	3,540,932	3,147,785	19,311	1,866	14,248,678

PRODUCTION.

	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1932-33 ..	78,870,000	47,843,129	2,493,902	42,429,614	41,791,866	433,031	65,439	213,926,981
1933-34 ..	57,085,000	42,131,100	1,361,614	35,373,160	37,305,100	560,665	66,852	177,337,803
1934-35 ..	42,672,309	25,850,528	1,070,181	27,455,000	26,985,000	307,525	49,398	133,393,532
1935-36 ..	48,822,000	37,552,062	2,690,316	31,615,744	23,315,417	186,014	36,216	144,217,769
1936-37 ..	55,606,000	47,811,816	3,016,366	28,711,683	21,544,000	570,805	26,352	151,389,952
1937-38 (u) ..	56,000,000	48,173,000	3,749,000	43,428,000	36,091,000	551,000	26,000	188,018,000
Average for ten seasons 1928- 37.. ..	52,064,400	39,086,610	3,514,402	32,270,090	35,521,322	423,586	34,103	162,923,513

(u) Subject to revision.

The acreage under wheat for grain increased steadily until 1915-16, when, largely as the result of a special war effort, 12,484,512 acres were sown. After that year, however, there was a serious decline, brought about by war conditions and unfavourable seasons, and the area in 1919-20 fell to 6,419,160 acres, or only half that of 1915-16.

From 1920-21 onwards there was a rapid extension of the area under wheat until in response to the urge of Commonwealth and State Governments the maximum area of 18 million acres was sown in 1930-31. The acreage declined to 14½ million acres in the following year, and after expanding by more than one million acres in 1932-33 declined heavily in the next three years to slightly under 12 million acres. The reduction in acreage was of course brought about by the unprofitable prices for the grain during the depression years.

Seasonal conditions under which the wheat crop of 1936-37 were grown were generally favourable in all States excepting Western Australia. In Victoria the average yield of 17.90 bushels per acre considerably exceeded the average for the decennium ending 1936-37 (12.22 bushels). In New South Wales the average of 13.98 bushels exceeded the ten yearly average by 1.29 bushels whilst in South Australia the yield was 0.27 bushels in excess of the ten yearly average. Seasonal conditions in Western Australia were not good; the average yield was only 8.37 bushels per acre or 2.91 bushels below the decennial average. The average yield per acre for Australia in 1936-37 amounted to 12.29 bushels, compared with 12.06 bushels for the previous year and 11.43 bushels, the average for the decennium ending 1936-37. The total production of grain

for 1936-37 amounted to 151.4 million bushels compared with 144.2 million bushels, the production of the previous year, and with 213.9 million bushels, the record harvest of 1932-33.

The annual production of wheat over the seventeen seasons ending with 1936-37 has exceeded 100 million bushels. It is the opinion of agricultural experts that, notwithstanding the vagaries of the weather, the improved methods of agriculture—seed selection, bare fallowing, application of fertilizers, etc.—will assure the wheat crop of Australia against total failure in the future.

Final figures are not yet available in respect of the 1937-38 wheat harvest, but the area sown according to the latest estimate was 13,686,000 acres, an increase of approximately 1,370,000 acres or 11 per cent. on that of the previous year, whilst the production was 188.0 million bushels, or 13.74 bushels per acre, compared with 151 million bushels or 12.29 bushels per acre for the previous year. The increase in acreage during 1936-37 was the first recorded since 1932-33, and the prospect of improved prices for the grain was responsible for the substantial gain in acreage during 1937-38.

(b) *Area, Production and Prices, 1861-70 to 1921-30.* The following table gives the average area, production and yield per acre for decennial periods since 1861, together with the average wholesale price since 1871. The price quoted represents the average at Melbourne (Williamstown), and may be accepted as fairly representative for Australia.

WHEAT.—AVERAGE AREA, PRODUCTION AND WHOLESALE PRICE, AUSTRALIA.

Period.	Area.	Production.	Yield per Acre.	Average Wholesale Price.
	Acres.	Bushels.	Bushels.	s. d.
1861-70	831,457	10,621,697	12.77	(a)
1871-80	1,646,383	17,711,312	10.76	5 1
1881-90	3,257,709	26,992,020	8.29	4 7
1891-1900	4,086,701	29,933,993	7.32	3 8
1901-10	5,711,230	56,958,070	9.82	3 10
1911-20	8,927,974	95,479,866	10.69	5 0
1921-30	11,290,543	135,399,860	11.99	5 8

(a) Not available.

(ii) *Average Yield.* In the next table will be found the average yield of wheat per acre for specified periods :—

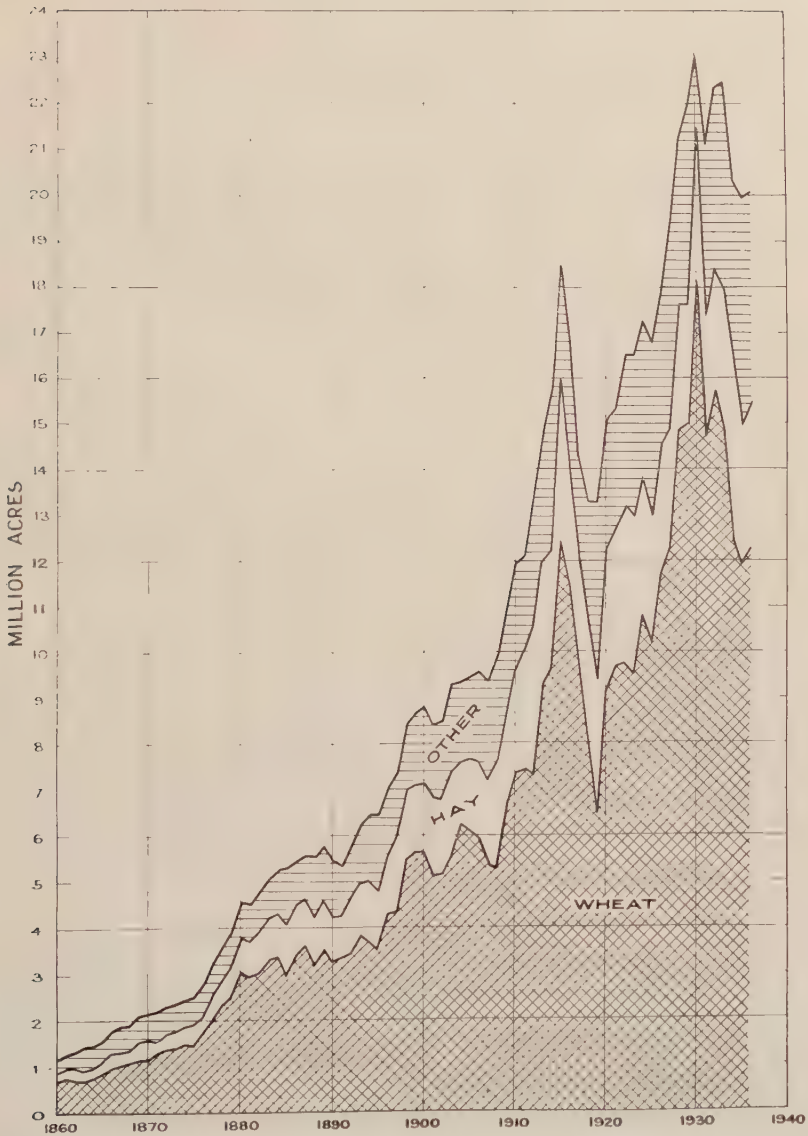
WHEAT.—YIELD PER ACRE.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Aus. Cap. Ter.	Australia.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1931-32 ..	14.92	11.77	15.53	11.81	13.14	15.61	16.84	12.93
1932-33 ..	16.42	14.81	9.97	10.43	12.33	20.64	19.03	13.57
1933-34 ..	12.45	13.96	18.80	9.26	11.72	23.27	21.66	11.90
1934-35 ..	12.50	10.51	18.38	8.61	9.76	18.46	21.91	10.63
1935-36 ..	12.68	16.16	11.23	10.58	9.18	17.88	22.37	12.06
1936-37 ..	13.98	17.90	7.11	9.39	8.37	20.78	17.98	12.29
1937-38 (a)	12.68	17.93	10.05	13.73	11.93	26.50	17.33	13.74
Average 10 seasons,	12.69	12.22	14.73	9.12	11.28	21.93	18.28	11.43
1928-37								

(a) Subject to revision.

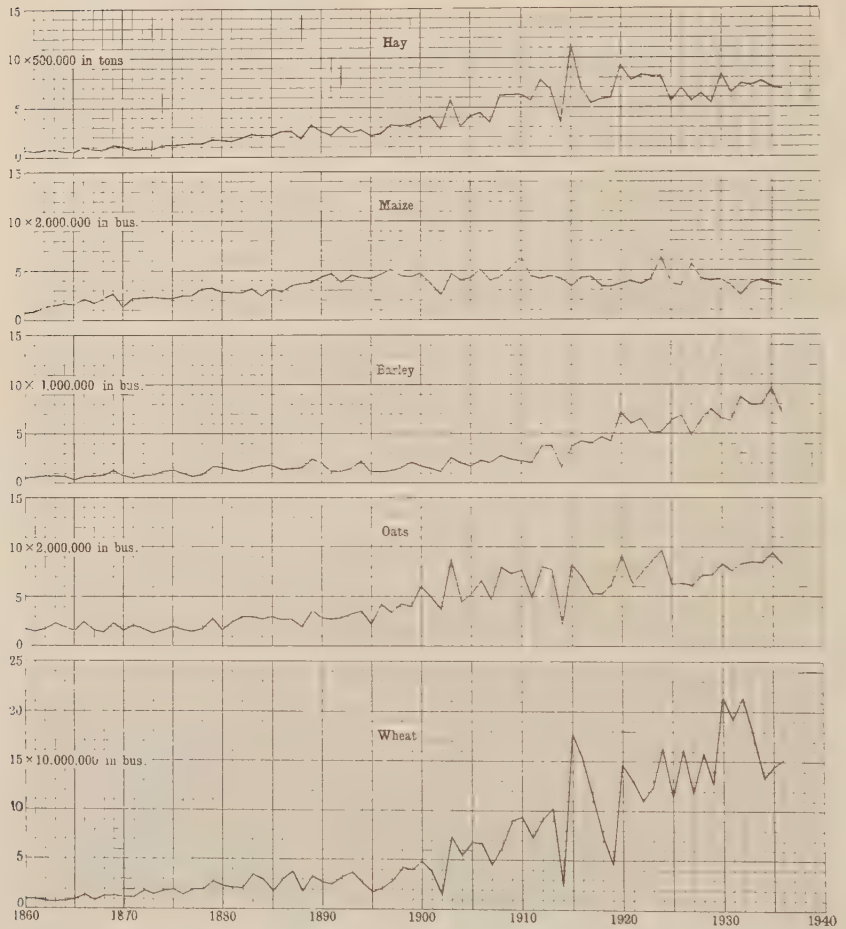
Variation in the average yields are chiefly due to the vagaries of the seasons. The best average yields for single seasons were obtained in 1924-25, 15.20 bushels; in 1920-21, 16.08 bushels; and in 1866, 16.35 bushels. In the last mentioned year less than 1,000,000 acres of relatively fertile land were sown. Annual averages for the past three decennia were 11.13, 12.48 and 11.43 bushels per acre.

AREA UNDER CROP—AUSTRALIA, 1860-61 TO 1936-37.



EXPLANATION.—The total area under crop is shown by the top curve in this graph, and the area under wheat by the bottom curve. The vertical distances between these curves and that in the centre indicate the areas under hay and other crops.

PRODUCTION OF PRINCIPAL CROPS—AUSTRALIA, 1860 TO 1936-37.



EXPLANATION.—A separate base line is provided for each of the crops dealt with. In each instance the base of a small square represents an interval of one year, the vertical height of such square representing in the case of wheat, 10,000,000 bushels; oats, 2,000,000 bushels; barley, 1,000,000 bushels; maize, 2,000,000 bushels; and hay, 500,000 tons. The height of each curve above its base line denotes the aggregate yield in Australia of the particular crop during the successive seasons.

(iii) *Relation to Population.* The main wheat producing States of Australia are New South Wales, Victoria, South Australia and Western Australia. Queensland production closely approaches local demands, but Tasmania imports from the mainland to satisfy its needs though partly in exchange it ships flour made from local wheat which is particularly suitable for biscuits. Normally the production of wheat greatly exceeds Australian requirements, and from half to three-quarters of the crop is exported overseas. In the pre-war period 1909-1913 Australia ranked sixth on the list of exporting countries but the position has improved in recent years and its exports are now exceeded only by those of Canada and Argentine Republic. The quantity exported from Australia was approximately 20 per cent. of the total quantity shipped by exporting countries during the five years ended 1936.

3. *Wheat Farms.*—Particulars of the number of farms growing wheat for grain on 20 acres and upwards during the past five years are shown in the following table. It should be remembered that a farm worked on the share system or as a partnership is included as one holding only.

**NUMBER OF FARMS GROWING WHEAT FOR GRAIN ON 20 ACRES AND UPWARDS.—
AUSTRALIA.**

State.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
	No.	No.	No.	No.	No.
New South Wales ..	17,040	16,312	15,099	14,923	15,425
Victoria ..	15,299	14,319	12,582	12,051	12,090
Queensland ..	1,655	2,188	1,957	1,847	2,211
South Australia ..	13,434	13,133	13,053	11,974	12,155
Western Australia ..	9,532	9,632	9,161	8,681	8,625
Tasmania ..	378	413	275	171	379
Total ..	57,338	55,997	52,127	49,647	50,885

(a) Total number of farms growing wheat for grain.

4. *Australian and Foreign Wheat Yields.*—(i) *Average Yield.* The next table gives the average return per acre in the principal wheat-growing countries of the world, ranging from a maximum in the Netherlands of 41 bushels per acre to a minimum in French Morocco of nearly 5 bushels per acre :—

WHEAT.—YIELD PER ACRE, VARIOUS COUNTRIES.

Country.	Average Yield in Bushels per acre.		Country.	Average Yield in Bushels per acre.	
	Average, 1934-1936.	1937.		Average, 1934-1936.	1937.
Netherlands ..	45.42	40.66	Brazil ..	14.38	(a) 14.39
Denmark ..	43.86	42.42	Portugal ..	14.31	13.31
Belgium ..	39.59	36.59	Argentine Republic	14.12	12.12
Ireland (Eire) ..	35.83	31.78	Spain ..	13.96	(a) 11.28
Sweden ..	34.98	35.05	Turkey ..	13.27	16.86
Great Britain and Northern Ireland	34.30	30.68	Syria ..	12.76	12.76
Switzerland ..	32.14	35.16	United States of America ..	12.40	13.56
Germany ..	31.72	33.63	Manchukuo ..	12.39	12.81
New Zealand ..	31.49	32.20	Greece ..	12.36	15.29
Norway ..	29.06	31.60	Rumania ..	12.27	15.74
Japan ..	28.89	28.49	Soviet Union ..	11.68	(b) 11.80
Egypt ..	28.89	31.94	Australia ..	11.65	13.74
Finland ..	25.09	26.10	Chosen ..	11.21	13.14
Czechoslovakia ..	24.06	24.44	Uruguay ..	10.78	12.58

WHEAT.—YIELD PER ACRE, VARIOUS COUNTRIES—*continued*.

Country.	Average Yield in Bushels per acre.		Country.	Average Yield in Bushels per acre.	
	Average, 1934-1936.	1937.		Average, 1934-1936.	1937.
France ..	22.30	8.03	Canada ..	10.72	7.13
Italy ..	19.83	23.09	Colombia ..	10.49	(a) 11.33
Hungary ..	19.59	19.33	India ..	10.31	11.03
Latvia ..	19.54	18.61	Mexico ..	9.72	8.81
Lithuania ..	18.58	15.55	Algeria ..	8.58	7.70
Poland ..	17.66	16.92	Union of South Africa ..	8.12	5.80
Bulgaria ..	16.95	20.07	Tunisia ..	7.46	7.26
China ..	16.37	14.94	French Morocco ..	7.31	4.48
Estonia ..	16.29	16.58	Palestine ..	7.21	8.38
Iran ..	(c) 16.44	(d) 15.91	Iraq ..	5.56	6.50
Yugoslavia ..	15.77	16.37			
Chile ..	15.10	16.02			

(a) Year 1936. (b) Estimated. (c) Average 1933-34. (d) Year 1934.

(ii) *Total Production.* The latest available official statistics of the production of wheat in various countries are given in the following table :—

WHEAT.—TOTAL PRODUCTION, VARIOUS COUNTRIES.

Country.	Yield in Bushels (,000 omitted).		Country.	Yield in Bushels (,000 omitted).	
	Average, 1934-1936.	1937.		Average, 1934-1936.	1937.
Soviet Union ..	1,070,101	1,200,000	Greece ..	25,430	32,375
China ..	818,659	636,450	Sweden ..	24,315	25,721
United States of America ..	593,076	874,008	French Morocco ..	23,953	13,547
India ..	354,977	306,390	Iran ..	23,047	(b) 70,041
France ..	292,308	253,539	Portugal ..	18,393	14,539
Canada ..	262,338	182,414	Union of South Africa ..	17,587	10,156
Italy ..	246,804	296,015	Netherlands ..	16,984	12,960
Argentine Republic	209,843	184,802	Syria and Lebanon	16,931	17,211
Germany ..	166,900	164,123	Belgium ..	16,337	15,500
Spain ..	155,439	(a) 121,493	Iraq ..	14,830	21,311
Australia ..	143,000	188,018	Denmark ..	12,969	13,522
Turkey ..	110,284	140,313	Tunisia ..	12,022	17,637
Rumania ..	100,571	138,160	Uruguay ..	12,089	15,142
Yugoslavia ..	82,951	86,252	Mexico ..	11,756	10,586
Hungary ..	78,597	72,157	Lithuania ..	9,504	8,109
Poland ..	76,228	70,776	Chosen ..	9,030	11,041
Great Britain and Northern Ireland	63,478	56,335	New Zealand ..	7,314	5,728
Czechoslovakia ..	55,898	51,268	Latvia ..	6,615	6,302
Bulgaria ..	48,941	64,911	Ireland (Eire) ..	6,109	6,989
Japan ..	47,191	50,412	Switzerland ..	5,427	6,081
Egypt ..	42,067	45,378	Brazil ..	5,377	(a) 5,512
Algeria ..	35,612	33,209	Finland ..	4,319	6,320
Chile ..	30,240	30,394	Colombia ..	3,973	(a) 4,530
Manchukuo ..	29,495	38,015	Palestine ..	3,226	4,681
			Estonia ..	2,603	2,785

NOTE.—The harvesta reported above for 1937 relate to the year 1937 for the Northern, and 1937-38 for the Southern Hemisphere.

(a) Year 1936. (b) Year 1934.

A complete statement of the world's production of wheat is not possible owing to the failure of certain countries to supply the necessary information. The International Institute of Agriculture, Rome, has, however, compiled figures obtained from the countries reporting with the following results :—

WHEAT.—WORLD'S PRODUCTION.(a)

Year.				Area.	Production.	Yield per acre.
				Acres.	Bushels.	Bushels.
Average	1909-1913..	..	..	270,266,000	3,779,479,000	13.98
"	1926-1930..	..	..	325,406,000	4,590,390,000	14.11
1932	..	..	..	346,285,940	4,599,944,000	13.28
1933	..	..	..	333,288,480	4,840,615,000	14.52
1934	..	..	..	330,619,800	4,620,153,000	13.97
1935	..	..	..	338,601,130	4,695,845,000	13.87
1936	..	..	..	345,223,410	4,476,740,000	12.97
Average	1932-1936	..	..	338,803,752	4,646,659,000	13.71

(a) From countries reporting including the Soviet Union.

The chief country excluded from the above table is China which in the year 1936 produced 848 million bushels of wheat from an area of 50.33 million acres or an average yield of 16.85 bushels per acre. It is stated by the International Institute, however, that these figures for China are largely conjectural and can be accepted only as approximate estimates. In addition they do not include all of the Territories embraced in the Chinese Republic. By the addition of the production of this country the world's total production for the year 1936 would exceed 5,326 million bushels.

The total area harvested in 1936 increased by 7 million acres. The Soviet Union with 4.5 million acres and the Argentine Republic with 4.0 million acres were chiefly responsible for this increase. With the exception of the United States, where the area was reduced by 2.4 million acres, there was little change in the areas harvested in the other producing countries of the world. In comparison with the average for the period 1926-30, areas sown to wheat throughout the world have increased considerably, the Soviet Union and European countries being the chief contributors.

The world's acreage under wheat in 1931 was the highest ever recorded, but the production was somewhat lower than that for the record year of 1930 when the production amounted to 4,882 million bushels. A succession of bountiful years commencing in 1928 led to very heavy accumulations of stocks, particularly in North America. These stocks reached their maximum between the years 1932 and 1934 but owing to reductions in world production during the three years ending in 1936, they were again reduced to normal dimensions. Heavy stocks are again accumulating with increases in production during the past two years.

Australia's contribution to the world's wheat during the last five years was 4 per cent. as to area and 3.5 per cent. in regard to production.

5. Price of Wheat.—The collapse in the price of wheat which occurred between 1928 and 1931 was chiefly due to the accumulation of stocks in exporting countries. The weighted average price of wheat (shippers' limits Sydney, Melbourne and Adelaide) fell from 5s. 1½d. in 1928 to 2s. 4½d. in 1931, a decline of 53 per cent. In 1932 the price increased to 3s. 0½d. but dropped to 2s. 9½d. in 1933 and to 2s. 7½d. in 1934. In September, 1935, prices increased to more than 3s. 4d. and fluctuated at about 3s. 6d. per bushel until August, 1936, when they again increased to more than 4s. 6d. In December, 1936, the average price was almost 5s. 3d. and from that month until October, 1937, the average exceeded 5s. The price receded to 4s. 6d. in November, and dropped further to 4s. 4d. in December, at which figure it remained until March, 1938, when it declined to 4s. Since March the price has fallen in successive stages to 2s. 6d. at

30th November, 1938. The table hereunder shows prices of Australian wheat during each of the last six years :—

PRICE OF WHEAT.—AUSTRALIA.

(WEIGHTED AVERAGE OF SHIPPERS' LIMITS FOR GROWERS' BAGGED LOTS, SYDNEY, MELBOURNE AND ADELAIDE.)

Item.	1932.	1933.	1934.	1935.	1936.	1937.
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
Price per bushel	3 0½	2 9½	2 7½	3 1½	4 1½	5 0½

6. Exports of Wheat and Flour.—(i) *Quantities.* The table appended shows the exports and net exports of wheat and flour from 1933-34 to 1937-38. For the sake of convenience, flour has been expressed at its equivalent in wheat, 1 ton of flour being taken as equal to 48 bushels of grain. Wheat and flour have been imported on only two occasions since 1900 to tide over lean seasons; in 1902-3 the wheat harvest was as low as 12,378,000 bushels and wheat and flour representing 12,468,000 bushels of wheat were imported, whilst an equivalent of 7,279,000 bushels was imported in 1914-15 to supplement the yield of 25 million bushels produced in that season. During the last five years exports in terms of wheat ranged between 87,635,144 bushels in 1933-34 and 124,764,585 bushels in 1937-38, the net exports for the period averaging 105,470,828 bushels :—

WHEAT AND FLOUR.—EXPORTS, AUSTRALIA.

Year.	Exports.			Net Exports.
	Wheat.	Flour.	Total.	
	Bushels.	Bq. Bushels.(a)	Bushels.	Bushels.
1933-34 ..	61,598,528	26,039,616	87,638,144	87,635,144
1934-35 ..	75,959,690	33,502,608	109,462,298	109,457,913
1935-36 ..	76,993,133	29,619,888	106,613,021	106,610,512
1936-37 ..	71,778,020	27,109,344	98,887,364	98,885,980
1937-38 (b) ..	94,593,757	30,262,608	124,766,365	124,764,585

(a) Equivalent in bushels of wheat.

(b) Subject to revision.

(ii) *Destination.* The following table gives the exports of wheat to various countries for each of the five years ended 1930-37, together with averages for the pre-war period 1909-13 :—

EXPORTS OF WHEAT.—AUSTRALIA.

Country to which Exported.	Average, 1909-13.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
United Kingdom ..	30,305,384	50,239,248	45,531,316	41,198,166	40,770,049	44,444,213
India ..	(a)	1,770,913	280,120	168,697	480,535	200
Ireland (Eire) ..	(a)	3,604,872	3,959,445	2,622,852	4,744,435	5,698,955
Union of South Africa ..	2,092,355	10,230	30,472	21,027	320,005	2,777
Other British Countries ..	(a)	1,007,312	194,540	438,727	1,440,725	957,367
Belgium ..	1,218,131	826,517	37,180	253,920	2,428,838	612,773
China ..	(a)	33,740,244	1,476,012	13,663,894	5,052,790	1,272,300
Egypt ..	135,377	1,019,218	203,760	1,605,768	562	30,045
France ..	1,081,918	..	..	..	40,613	775,791
Germany ..	286,822	46,125	..	..	..	797,100
Italy ..	581,309	3,856,230	699,225	18,838	1,736,663	10,166,855
Japan ..	330,131	17,896,367	7,720,102	15,530,335	11,043,610	2,507,307
Other Foreign Countries ..	4,465,847	4,128,432	1,247,350	437,466	2,909,408	4,712,137
Total ..	41,997,274	119,555,938	61,598,528	75,959,690	76,993,133	71,778,020

(a) Included with "Other Foreign Countries."

Exports of flour from Australia for the periods mentioned are given in the next table:—

EXPORTS OF FLOUR.—AUSTRALIA.

Country to which Exported.	Average, 1909-13.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
United Kingdom	27,699	121,995	135,077	99,332	130,998	177,329
Ceylon	3,389	19,239	18,893	18,821	17,090	16,210
Hong Kong	3,072	50,874	27,063	50,616	44,383	40,503
Malaya (British)	15,492	43,965	50,834	61,926	55,592	66,596
Union of South Africa ..	39,714	228	436	371	545	205
Other British Countries ..	(a)	53,167	61,490	46,158	60,314	65,758
China	(a)	160,062	79,261	814	951	2,113
Egypt	(a)	28,589	27,766	26,864	23,722	35,005
Manchuria (b)	(a)	(c)	(c)	240,181	112,789	9,422
Netherlands East Indies ..	26,997	73,179	80,623	82,147	82,077	74,928
Philippine Islands	13,680	11,484	10,998	27,437	40,491	35,522
Other Foreign Countries ..	47,367	68,677	47,851	43,304	48,130	41,184
Total	167,112	631,459	542,492	697,971	617,081	564,778

(a) Included with "Other Foreign Countries."

(b) Including Kwantung Peninsula.

(c) Included with China.

7. Exports—Principal Countries.—The following table shows the net quantities of wheat exported from the chief exporting countries in recent years and during the pre-war period. In the years before the war the Soviet Union was the outstanding contributor to the world's supply of wheat followed by the United States of America, but in recent years the net exports from both of these countries have been relatively unimportant. Canada now occupies the foremost position with Argentine Republic and Australia coming next in order.

Although the local production of wheat is less than 4 per cent. of the world's total, the exports from Australia represented just under 20 per cent. of the quantities shipped during 1932 to 1936, and as an exporting country Australia has made the greatest relative advance since 1913.

WHEAT.(a)—NET EXPORTS, PRINCIPAL COUNTRIES.

WHEAT, NET EXPORTS, PRINCIPAL COUNTRIES.						
Country.	Average 1909-13.		1935.	1936.	Average 1932-36.	
	'000 Bushels.	Per cent.	'000 Bushels.	'000 Bushels.	'000 Bushels.	Per cent.
Soviet Union (b) ..	157,109	23.71	26,711	4,255	17,070	2.91
United States of America ..	100,864	15.22	..	..	22,150	3.77
Argentine Republic ..	95,041	14.34	146,171	63,082	133,866	22.82
Canada ..	89,919	13.57	186,431	263,794	221,223	37.70
British India ..	50,886	7.68	1,532	20,044	5,160	0.88
Australia ..	49,417	7.46	100,419	95,897	116,621	19.88
All Other Countries ..	119,351	18.02	85,541	98,069	70,620	12.04
Total ..	662,587	100.00	546,805	545,141	586,710	100.00
World's Production ..	3,779,479		4,695,845	4,476,740	4,046,659	
Percentage of Australian Net Exports on Total Net Exports	7.46		18.36	17.59	19.88	
Percentage of Australian Production on World's Production	2.39		3.07	3.38	3.53	

(a) Including flour expressed in terms of wheat. (b) The average for 1909-13 is not strictly comparable with the later years, owing to changes of frontiers under the Peace Treaty.

8. Imports—Principal Countries.—The quantities of wheat and flour (expressed in terms of wheat) imported into the principal countries for the periods indicated are shown in the following table. Great Britain and Northern Ireland is easily the leading importing country. The quantities imported into certain European countries, particularly Germany, Netherlands, Belgium and Italy are both relatively and actually much smaller now than formerly owing to the encouragement given to the local wheat-growing industries in those countries. During recent years the imports of wheat into China and Japan have grown considerably, and a large share in this trade has been supplied by Australia :—

WHEAT.(a)—IMPORTS, PRINCIPAL COUNTRIES.(b)

Country Importing.	Average, 1909-13.		1935.	1936.	Average, 1932-36.	
	'000 Bushels.	Per cent.	'000 Bushels.	'000 Bushels.	'000 Bushels.	Per cent.
Great Britain and Northern Ireland ..	219,365	30.42	208,819	208,932	217,102	33.09
Germany	89,732	12.44	5,972	2,752	19,804	3.02
Netherlands	76,340	10.59	21,495	20,301	24,102	3.67
Belgium	73,963	10.26	38,922	43,993	44,417	6.77
Italy	57,156	7.93	20,319	19,698	23,011	3.51
France	38,682	5.36	28,617	21,929	38,326	5.84
Brazil	20,774	2.88	34,623	36,288	33,548	5.11
Egypt	7,915	1.10	1,612	158	1,421	0.22
Union of South Africa	6,519	0.90	80	66	451	0.07
China (c)	5,526	0.77	44,443	5,813	46,983	7.16
Japan	3,714	0.52	16,777	12,504	19,016	2.90
All Other	121,409	16.83	207,073	142,059	187,880	28.64
Total	721,095	100.00	628,752	514,493	656,061	100.00

(a) Including flour expressed in terms of wheat. (b) In some instances the average 1909-13 is not strictly comparable with the other years shown, owing to changes of frontiers. (c) Including Manchurian ports.

9. Consumption of Wheat.—(i) *Australia*. The estimated consumption of wheat for food and the quantity used for seed in Australia during the last five years are shown hereunder :—

AVERAGE HUMAN CONSUMPTION, 1932-33 TO 1936-37.

Flour milled .. ..	.. ..	1,290,600 tons
Less net exports of flour	610,699 tons	
Less net exports of flour in biscuits	1,037 "	
		611,736 ..
Change in flour stocks .. ..	.. ..	678,864 "
		9,208 "
Net quantity consumed .. ..	.. ..	669,656 ..
Equivalent in terms of wheat .. ..	.. ..	32,143,488 bushels
Net quantity consumed per head of population—		
As flour .. ..	.. ..	200 lb.
As wheat .. ..	.. ..	4.8 bushels

AVERAGE USED FOR SEED, 1932-33 TO 1936-37.

Average area sown for grain, hay and green forage ..	14,434,034 acres
Average quantity of seed used	14,212,723 bushels
Average quantity of seed used per acre	59 lb.
Average quantity per head of population	2.12 bushels

In addition to the above, allowance must be made for wheat fed to poultry and other live stock. The quantity so used is estimated at 8,505,000 bushels or 1.28 bushels per head of population for the five years ended 1936-37. Almost the whole of this quantity is used in the form of grain as feed for poultry, principally fowls, which numbered about 16.7 million during the year 1936-37. The average quantity of flour consumed per annum for the five years under consideration was 200 lb. per head of population, which, expressed in terms of wheat, represents 4.8 bushels. The estimates of grain used for seed in Victoria, South Australia and Western Australia are based on data collected from growers. In the other States estimates supplied by the Agricultural Departments have been used. The average annual quantity used for the purposes indicated during the last five years was 2.12 bushels per head of population, or 63 lb. per acre sown. The consumption of wheat in Australia for all purposes during the period dealt with averaged 54,921,000 bushels, or 8.19 bushels per head of population.

(ii) *Other Countries.* The following table gives the consumption of wheat in some of the principal countries of the world. The figures, which were obtained partly from the Food Research Institute of California, represent the *per capita* consumption of wheat exclusive of the quantity used for seed purposes:—

PER CAPITA CONSUMPTION OF WHEAT, EXCLUDING SEED, FOR PERIOD
1932-33 TO 1936-37.

Country.	Used for human consumption.	Fed to Stock.	Total.
	Bushels.	Bushels.	Bushels.
Argentine Republic	5.6	0.4	6.0
Australia	4.8	1.3	6.1
Canada	4.0	3.0	7.0
New Zealand	4.2	1.2	5.4
Great Britain and Northern Ireland (a)	4.8	1.0	5.8
United States.. ..	3.6	1.0	4.6

(a) Period 1922-29.

10. *Value of the Wheat Crop.*—The estimated value of the wheat crop in each State and in Australia during the season 1936-37 is shown below.

WHEAT.—VALUE OF CROP(a), 1936-37.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus. Cap. Ter.	Australia.
	£	£	£	£	£	£	£	£
Aggregate value	14,612,850	11,693,065	580,000	7,477,413	5,950,936	149,860	6,917	40,471,041
Value per acre ..	£3/13/4	£4/17/8	£2/0/11	£2/8/11	£2/6/3	£7/0/7	£4/14/4	£3/5/9

(a) Gross value of total crop, including seed used on farm, valued at metropolitan prices but exclusive of value of straw.

11. *Varieties of Wheat Sown.*—Particulars of the variations of wheat sown and the areas thereunder are collected from time to time. The following table shows particulars of the nine principal varieties sown in the four main producing States and the percentage each bears to the total area sown for the year 1936.

PRINCIPAL VARIETIES OF WHEAT SOWN.—STATES, 1936.

New South Wales.		Victoria.		South Australia.		Western Australia.	
Variety.	Per- cent- age.	Variety.	Per- cent- age.	Variety.	Per- cent- age.	Variety.	Per- cent- age.
	%		%		%		%
Ford ..	20.9	Ghurka ..	45.1	Ranee ..	22.6	Bencubbia ..	31.9
Nabawa ..	20.7	Ranee ..	22.3	Nabawa ..	15.5	Glueclub ..	12.0
Dundee ..	12.3	Free Gallipoli ..	14.7	Sword ..	11.8	Merredin ..	9.8
Baringa ..	6.7	Sepoy ..	3.2	Waratah ..	5.4	Gluyas Early ..	8.3
Waratah ..	6.6	Dundee ..	2.8	Gluyas ..	5.4	Totadgin ..	7.0
Bobin ..	4.1	Nabawa ..	1.5	Ford ..	5.2	Nabawa ..	6.3
Ranee ..	4.1	Rajah ..	1.5	Gallipoli ..	3.0	Noongar ..	5.7
Yandilla King ..	2.4	Bencubbin ..	1.2	Ghurka ..	3.0	Waratah ..	3.1
Bencubbin ..	2.4	Major ..	1.0	Late Gluyas ..	2.3	Ford ..	2.0
All Others ..	19.8	All others ..	6.7	All Others ..	25.8	All Others ..	13.9
Total ..	100.00	Total ..	100.00	Total ..	100.00	Total ..	100.00

It is interesting to note the changes that have taken place in the leading varieties during recent years. In New South Wales, Nabawa, a variety relatively unimportant in 1929, became prominent in 1933. It occupied the leading position until 1936 when it was displaced by Ford. The leading variety sown in Victoria between 1929 and 1934 was Free Gallipoli, but since 1935 it has been supplanted by Ghurka. In South Australia Nabawa came into prominence in 1933 but in 1936, though still relatively important, it ceded leading position to Ranee. Nabawa was the principal variety in Western Australia until it was displaced by Bencubbin in 1934. While this latter variety had occupied only 7 per cent. of the total area in 1933, in the year following no less than 22.5 per cent. was sown to Bencubbin and in 1936 it retained its leading position with 32 per cent. More than 1,000 different varieties of Australian wheat have been catalogued by the Council for Scientific and Industrial Research.

12. **Stocks of Wheat and Flour.**—Stocks of wheat and flour held by each State at 30th November, 1937, and the total held in Australia on the same date for the previous four years will be found in the following table. The figures have been compiled from information collected from millers, merchants, the Railway Departments and other sources, but are exclusive in certain instances of stocks held by farmers:—

STOCKS OF WHEAT AND FLOUR.—AUSTRALIA, 30th NOVEMBER, 1937.

State.	Wheat.	Flour.	Total in terms of wheat.(a)
	Bushels.	Tons.	Bushels
New South Wales ..	1,913,919	28,300	3,272,319
Victoria ..	2,055,913	22,831	3,151,800
Queensland ..	133,577	4,933	370,361
South Australia ..	521,778	8,167	913,794
Western Australia ..	271,095	10,109	756,927
Tasmania ..	193,866	2,110	295,146
Total, 30th November, 1937 ..	5,090,748	76,450	8,760,347
" " 1936 ..	3,505,469	101,063	8,356,493
" " 1935 ..	12,371,270	86,637	16,673,867
" " 1934 ..	34,708,963	112,385	40,103,463
" " 1933 ..	14,375,614	36,638	18,534,212

(a) One ton of flour treated as equivalent to 48 bushels of wheat.

13. **Voluntary Wheat Pools.**—(i) *General.* Voluntary wheat pools operated in the States of Victoria, South Australia and Western Australia during the season 1930-37. In New South Wales the pool was inactive during the year. The system adopted in these States is somewhat similar, and is a co-operative one controlled by trustees, or committees appointed by the growers, the whole of the proceeds, less administrative

expenses, being distributed amongst contributors of wheat to the pool. The trading names of these organizations in the various States are as follows :—

New South Wales.—The Wheat Growers' Pooling and Marketing Co. Ltd.

Victoria.—Victorian Wheat-growers' Corporation Ltd.

South Australia.—South Australian Co-operative Wheat Pools Ltd.

Western Australia.—The Trustees of the Wheat Pool of Western Australia.

The marketing of wheat in Queensland is conducted on a compulsory basis by the State Wheat Board, consisting of four elected representatives and one member nominated by the Minister for Agriculture who represents the Queensland Government. The present Board was elected on 1st August, 1935, and holds office for three years from that date.

(ii) *Delivery of Wheat to Pools, Costs, etc.* The quantities of wheat received and the estimated average costs per bushel of rail freight and of administrative and other expenses are given hereunder. As the season's operations are not yet complete, the costs shown are subject to revision.

WHEAT RECEIVED BY VOLUNTARY POOLS, 1937–38.

Particulars.	Unit.	Victoria.	Queensland. (a)	South Australia.	Western Australia.
Wheat received ..	Bushel	57,853	3,565,381	876,490	9,035,000
Percentage on Total Market- able Wheat ..	%	0.00	92	2½	28
Estimated average cost of rail freight to seaboard, per bushel ..	d.	4.9	5	3½	4½
Estimated average cost per bushel of Administration and other expenses ..	d.	4.1	(b)3	4½	3½

(a) Compulsory Pool.

(b) Approximate.

(iii) *Finance.* The requisite financial accommodation in Victoria and South Australia was furnished by the Commonwealth Bank. In Western Australia funds were made available by financial houses in London. Initial advances made available to growers on the delivery of their wheat at country stations are shown, together with subsequent payments, in the following table :—

WHEAT POOLS ADVANCES(a) PER BUSHEL MADE TO SEPTEMBER, 1938.

Particulars.	Victoria.	South Australia.	Western Australia.
	s. d.	s. d.	s. d.
1st Payment	3 7½	3 1	3 0
2nd Payment		4½	0 7½
3rd Payment		1½	0 2
4th Payment		..	(b)0 0½

(a) Less Rail Freight.

(b) Bulk wheat, ½d. for bagged wheat.

In Queensland the Commonwealth Bank provides the financial assistance necessary to make advances on wheat delivered, the State Government guaranteeing the Wheat Board's accounts with the bank. All wheat not required for consumption on the farm is delivered to the Board, which is the sole marketing agency. The crop in 1937–38 amounted to 3,865,324 bushels; of which 3,565,381 bushels, or 92 per cent., was delivered into the pool. Net advances made to growers on No. 1 quality wheat totalled 3s. 6d. per bushel; other grades bear the dockages ranging from ½d. to 4½d. per bushel assessed at the time of delivery according to quality. The dockages being a deduction from the first advance, subsequent advances are uniform on all grades.

14. *Special Tabulation of Wheat Holdings.*—(i) *General.* With the co-operation of the State Statisticians an extensive analysis was made of the returns collected at the annual agricultural census of 1935-36 in respect of all holdings growing wheat for grain in the principal producing States. The results are published in the following tables.

(ii) *Wheat Holdings: Number, Area and Production.* The areas of the holdings growing wheat for grain are shown in the following table together with the production of wheat thereon:—

WHEAT HOLDINGS.—NUMBER, AREA AND PRODUCTION, 1935-36.

State.	Holdings.			Wheat.			
	Growing Wheat for Grain.	Total Area.	Average Area.	Area Sown.	Average Area Sown.	Production.	Average Production per Holding.
	No.	Acres.	Acres.	Acres.	Acres.	Bushels.	Bushels.
New South Wales ..	15,923	21,379,178	1,531	3,851,373	242	48,822,000	3,066
Victoria ..	13,780	12,482,336	906	2,323,753	169	37,552,002	2,725
South Australia ..	12,787	17,896,496	1,400	2,989,499	234	31,615,744	2,472
Western Australia ..	9,939	19,339,951	2,140	2,540,596	287	23,315,417	2,579
Total (Four States)	51,529	71,097,961	1,438	11,705,312	227	141,305,223	2,742

(iii) *Wheat Holdings and Sheep.* One of the objects of the analysis was to ascertain the extent to which certain other forms of farm production were combined with the growing of wheat. It will be seen from the table below that 75 per cent. of the wheat holdings carried sheep, the numbers depastured forming a considerable proportion of the sheep populations of the individual States.

WHEAT HOLDINGS AND SHEEP, 1935-36.

State.	Holdings.				Number of Sheep.	Total Number of Sheep in State. (a)	Percentage on Wheat Farms.
	Without Sheep.		With Sheep.				
	No.	%	No.	%	No.	No.	
New South Wales ..	2,296	14.42	13,627	85.58	13,393,541	51,936,000	25.78
Victoria ..	3,806	27.62	9,974	72.38	4,841,152	17,457,291	27.73
South Australia ..	4,115	32.18	8,672	67.82	3,750,864	7,945,745	47.21
Western Australia ..	2,295	25.39	6,744	74.61	4,482,667	11,082,972	40.45
Total (Four States)	12,512	24.28	39,017	75.72	26,468,224	83,422,008	29.93

(a) Including Sheep outside Wheat Areas.

(iv) *Wheat Holdings and Dairy Cows.* In addition to sheep, the great majority of holdings also carried dairy cows. As indicated in the footnote to the table the particulars available for New South Wales refer only to those holdings which are registered as dairies and therefore an effective comparison cannot be made for the four States.

WHEAT HOLDINGS AND DAIRY COWS, 1935-36.

State.	Holdings.				Number of Dairy Cows.	Total Number of Dairy Cows in State. (b)	Percentage on Wheat Farms.
	Without Dairy Cows.		With Dairy Cows.				
	No. (a)	%	No. (b)	%	No. (a)	No. (1,001,562)		% (a)
New South Wales ..							
Victoria ..	1,993	14.46	11,787	85.54	109,049	987,676	11.00
South Australia ..	1,980	15.48	10,807	84.52	79,159	173,706	45.57
Western Australia ..	1,791	19.01	7,248	80.19	32,243	130,132	24.78
Total (Three States)	5,764	16.19	29,842	83.81	220,451	1,291,514	17.07

(a) The particulars available for New South Wales refer to registered dairies only. These details show that of the 15,023 holdings growing wheat for grain, 1,775 were also registered as dairies and the number of dairy cows carried was 51,344.

(b) Including dairy cows outside wheat areas.

(v) *Wheat Holdings and Pigs.* The extent to which pig raising is conducted in conjunction with the growing of wheat for grain is indicated in the next table :—

WHEAT HOLDINGS AND PIGS, 1935-36.

State.	Holdings.				Number of Pigs.	Total Number of Pigs in State. (a)	Percentage on Wheat Farms.
	Without Pigs.		With Pigs.				
	No.	%	No.	%			
New South Wales ..	10,462	65.70	5,461	34.30	59,673	436,944	13.66
Victoria ..	8,298	60.22	5,482	39.78	41,100	314,301	13.08
South Australia ..	5,425	42.43	7,362	57.57	58,628	93,458	62.73
Western Australia ..	5,318	58.83	3,721	41.17	62,079	98,026	63.33
Total (Four States)	29,503	57.26	22,026	42.74	221,480	942,729	23.49

(a) Including Pigs outside Wheat Areas.

(vi) *Wheat Holdings: Area sown and Yield per Acre.* The holdings growing wheat for grain were classified for each of the principal producing States according to areas sown and yields per acre. It is possible to show only the totals for the four States combined in the Year Book. Details for the States are published in Production Bulletin No. 30 issued by this Bureau. The classification according to areas sown is as follows:—

WHEAT HOLDINGS CLASSIFIED ACCORDING TO AREAS SOWN.

(PRINCIPAL PRODUCING STATES.)

Area under Wheat for Grain.		Holdings.		Area under Grain.		Production.	
Acres.		No.	%	'000 Acres.	%	'000 Bushels.	%
1-19 ..	..	3,843	7.5	36	0.3	517	0.4
20-49 ..	..	4,167	8.1	132	1.1	1,908	1.4
50-99 ..	..	5,521	10.7	390	3.3	5,894	4.2
1-99 ..	..	13,531	26.3	558	4.7	8,319	6.0
100-199 ..	..	11,979	23.2	1,712	14.6	25,320	17.9
200-299 ..	..	11,064	21.5	2,623	22.4	33,967	24.0
300-399 ..	..	7,160	13.9	2,373	20.3	26,808	19.0
400-499 ..	..	3,691	7.2	1,594	13.6	16,668	11.8
100-499 ..	..	33,894	65.8	8,302	70.9	102,763	72.7
500-599 ..	..	1,805	3.5	955	8.2	10,124	7.2
600-699 ..	..	946	1.8	594	5.1	6,105	4.3
700-799 ..	..	489	0.9	357	3.1	3,864	2.7
800-899 ..	..	284	0.6	236	2.0	2,582	1.8
900-999 ..	..	188	0.4	175	1.5	1,865	1.3
1,000-1,999 ..	..	368	0.7	453	3.9	4,716	3.3
2,000 and over ..	..	24	..	75	0.6	967	0.7
500 and over ..	..	4,104	7.9	2,845	24.4	30,223	21.3
Total ..	..	51,529	100.0	11,705	100.0	141,305	100.0

Wheat is grown in the principal producing States on an extensive scale; more than 76 per cent. of the production in 1935-36 was sown on areas of 200 acres or more. Although 13,531 holdings grew wheat on small areas of under 100 acres the yield therefrom was only 6 per cent. of the total. At the other end of the scale less than 10 per cent. was reaped from the very large areas of 700 acres or over. The average area sown was 227 acres.

In the next table the classification according to average yields is shown :—

WHEAT HOLDINGS CLASSIFIED ACCORDING TO AVERAGE YIELDS.

PRINCIPAL PRODUCING STATES.

Average Yield per Acre.		Holdings.		Area under Grain.		Production.	
Bushels.		No.	%	'000 Acres.	%	'000 Bushels.	%
Under 3 ..	..	5,404	10.5	1,445	12.3	1,998	1.4
3 and under 6 ..	..	5,817	11.3	1,585	13.5	7,132	5.1
6 " " 9 ..	..	6,672	12.9	1,751	15.0	13,085	9.3
9 " " 12 ..	..	6,830	13.3	1,659	14.2	17,283	12.2
12 " " 15 ..	..	6,180	12.0	1,405	12.0	18,828	13.3
15 " " 18 ..	..	5,885	11.4	1,170	10.0	19,195	13.6
18 " " 21 ..	..	4,929	9.6	906	7.7	17,629	12.5
21 " " 24 ..	..	3,628	7.0	684	5.8	15,365	10.9
24 " " 27 ..	..	2,994	5.8	544	4.7	13,852	9.8
27 " " 30 ..	..	1,551	3.0	298	2.6	8,471	6.0
30 " " 33 ..	..	1,109	2.2	182	1.6	5,700	4.0
33 " " 36 ..	..	290	0.6	46	0.4	1,593	1.1
36 " " 39 ..	..	172	0.3	23	0.2	867	0.6
39 " " 42 ..	..	36	0.1	4	..	144	0.1
42 " " 45 ..	..	13	..	2	..	79	0.1
45 " " 48 ..	..	15	..	1	..	59	..
48 " " 54 ..	..	4	..	..	..	25	..
Total ..	..	51,529	100.0	11,705	100.0	141,305	100.0

The most significant feature of the above tabulation is the very low returns obtained from considerable areas sown; more than 3 million acres, or one-quarter of the total sowings, yielded less than 6 bushels to the acre and practically one-half of this acreage returned yields of under 3 bushels. On the other hand the productivity of vast tracts of wheat country is indicated by the yields of 15 bushels or more over an area of 3.9 million acres, whilst nearly 1 million acres returned 25 bushels or over to the acre.

§ 5. Oats.

1. Progress of Cultivation.—(i) *Area and Production.* Oats are usually next in importance to wheat amongst the grain crops cultivated in Australia, but while wheat grown for grain accounted for 59.78 per cent., oats represented only 7.40 per cent. of the area under crop in 1936–37. The acreage and production of oats for the last five years are shown in the table hereunder.

OATS.—AREA AND PRODUCTION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Aus. Cap. Ter.	Australia.
AREA.								
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1932–33 ..	163,809	368,846	3,733	174,244	285,850	30,652	128	1,027,262
1933–34 ..	203,093	525,976	5,207	265,074	342,042	31,199	130	1,373,921
1934–35 ..	237,405	506,638	4,566	367,192	408,810	36,611	331	1,561,553
1935–36 ..	279,622	505,623	6,823	299,771	448,156	23,928	248	1,564,171
1936–37 ..	235,817	381,069	7,932	414,723	403,129	21,953	238	1,524,861
Average 10 seasons, 1928–37 ..	187,169	460,545	3,995	262,810	343,778	31,829	194	1,290,320
PRODUCTION.								
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1932–33 ..	3,513,780	6,363,853	58,729	1,788,712	3,603,447	828,239	2,868	10,159,628
1933–34 ..	3,178,470	6,778,741	60,531	2,082,772	3,949,905	854,239	3,357	10,922,031
1934–35 ..	3,856,680	5,248,767	82,196	2,412,117	4,244,322	1,054,256	7,662	10,966,022
1935–36 ..	4,735,740	6,365,080	119,459	2,386,968	4,555,774	550,770	5,001	18,720,774
1936–37 ..	3,967,560	6,107,885	22,417	2,363,806	3,445,167	751,244	4,200	16,662,279
Average 10 seasons, 1928–37 ..	3,138,771	5,955,212	56,316	2,008,521	3,717,844	903,960	3,386	15,784,060

The oat crop showed considerable variation during the past decennium, ranging from 12,084,265 bushels in 1927-28 to 18,720,774 bushels in 1935-36, with an average for the period of 15,784,060 bushels. The demand for the grain for oatmeal varies from 1½ million bushels to 2 million bushels annually. The cereal is mainly used as feed grain, and its value, particularly in good seasons, does not warrant an extension of area.

The principal oat-growing State is Victoria, which produces on the average more than one-third of the total quantity grown in Australia. South Australia, Western Australia and Tasmania also produce considerable quantities in excess of local requirements. Western Australia disposes of its surplus to the East, principally to Malaya (British), whilst the other States export chiefly to New South Wales and Queensland. For Australia as a whole the record yield of oats was obtained during 1924-25, when 19,393,737 bushels were harvested.

(ii) *Average Yield.* The average yield per acre of oats varies considerably in the different States, being highest in Tasmania and lowest in South Australia. Averages for each of the last five seasons, and for the decennium 1928 to 1937 are given in the table below :—

OATS.—AVERAGE YIELD PER ACRE.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus. Cap. Ter.	Aus- tralia.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1932-33 ..	21.45	17.25	15.73	10.27	12.61	27.02	22.41	15.73
1933-34 ..	15.60	12.89	13.35	7.88	11.53	27.38	25.82	12.32
1934-35 ..	16.25	10.36	18.00	6.57	10.38	28.80	23.14	10.83
1935-36 ..	16.94	12.59	17.50	7.94	10.17	23.27	20.41	11.97
1936-37 ..	16.82	16.03	2.83	5.70	7.44	34.22	17.65	10.93
Average for 10 seasons 1928-37	16.77	12.93	14.10	7.64	10.81	28.40	17.45	12.23

The smallest average yield per acre ever recorded for Australia was that experienced in the abnormally dry season 1914-15, viz., 5.60 bushels, while the largest in the last ten years was that of the season 1932-33, amounting to 15.73 bushels per acre.

2. *World's Production.*—The world's production of oats for the year 1936, as computed by the International Institute of Agriculture, amounted to 3,178 million bushels. This quantity was harvested from 136 million acres, and represents an average yield of 23.40 bushels per acre. In comparison with this average return per acre, that of Australia for the same period (10.93 bushels) appears very small. Yields in excess of 40 bushels per acre are not uncommon, whilst in Belgium, Netherlands and Ireland (Eire) the average exceeded 50 bushels per acre during 1936. The following table shows the world's production and average yield for the last five years, together with the average for the quinquennium 1927-1931 :—

OATS.—WORLD'S PRODUCTION.

Year.	Area.	Production.	Average Yield per Acre.
	Million. Acres.	Million Bushels.	Bushels.
Average 1927-31 ..	147	3,288	22.30
1932 ..	142	3,556	25.20
1933 ..	139	3,365	24.09
1934 ..	136	3,210	23.64
1935 ..	146	3,719	25.43
1936 ..	136	3,178	23.40

3. **Prices of Oats.**—The average wholesale prices in the Metropolitan markets for the year 1936-37 are given in the following table :—

OATS.—AVERAGE WHOLESALE PRICES, 1936-37.

Particulars.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Average price per bushel ..	2 9½	2 7½	3 5½	2 5½	2 11½	2 7½

4. **Imports and Exports.**—The production of oats in Australia has not yet reached sufficient proportions to admit of a regular export trade. During the year 1927-28 there was a net import of 460,581 bushels. The quantities and values of oats imported into and exported from Australia during the years 1932-33 to 1936-37 are given hereunder :—

OATS.—IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.(a)	Quantity.	Value.(a)	Quantity.	Value.(a)
	Bushels.	£	Bushels.	£	Bushels.	£
1932-33 ..	4,443	981	245,178	26,311	240,735	25,330
1933-34 ..	3,542	772	87,275	12,789	83,733	12,017
1934-35 ..	7,302	1,728	576,062	61,581	568,760	59,853
1935-36 ..	3,790	1,065	244,698	28,783	240,908	27,718
1936-37 ..	11,828	1,676	258,703	35,923	246,875	34,247

(a) Australian currency values.

The quantity of oats imported into Australia is not very great and is obtained chiefly from New Zealand, while the principal countries to which oats were exported during the years quoted were New Zealand, Malaya (British), Ceylon, India and Mauritius. During 1934-35, 1935-36 and 1936-37 the United Kingdom has taken 457,000, 107,000 and 150,000 bushels respectively.

5. **Oatmeal, etc.**—The production of oatmeal in Australia during 1936-37 amounted to 358,529 cwt., practically the whole of which is consumed locally, the quantity of oats used for oatmeal being 1,841,574 bushels, or about 11 per cent. of the total production. Oversea trade in this and similar products is small; the imports of oatmeal, wheatmeal and rolled oats during 1936-37 amounted to 366 cwt., and exports to 30,548 cwt.

6. **Value of Oat Crop.**—The estimated value of the oat crop for the season 1936-37 was as follows :—

OATS.—VALUE OF CROP, (a) 1936-37.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus. Cap. Ter.	Australia.
	£	£	£	£	£	£	£	£
Aggregate value..	529,010	814,385	3,735	330,921	408,831	104,700	559	2,282,141
Value per acre ..	£2/4/10	£2/2/9	£0/9/5	£0/15/11	£1 1/7	£4 15/5	£2/7/0	£1/9/11

(a) Exclusive of the value of straw.

§ 6. Maize.

1. **States Growing Maize.**—Maize is grown for grain chiefly in New South Wales and Queensland, the area so cropped in these States during the season 1936-37 being 297,552 acres, or 94 per cent. of the total for Australia. Of the balance, Victoria contributed 20,115 acres, Western Australia 38 acres and the Australian Capital Territory 5 acres. The climate of Tasmania is unsuitable for the growing of maize for grain. In the States mentioned the crop is grown to a greater or lesser extent for green forage, particularly in connexion with the dairying industry.

2. **Progress of Cultivation.**—(i) *Area and Production.* Notwithstanding its extensive cultivation in other countries the area under maize in Australia has fluctuated around 300,000 bushels during the past decennium. Compared with the previous year, the area in 1936-37 increased by 20,100 acres, but the acreage sown was considerably less than the comparatively large areas of 414,914 and 400,544 acres sown respectively in 1910-11 and 1927-28.

The area and production of maize for grain in each State for the last five years and the average for the decennium 1928-1937 are given in the following table.

MAIZE.—AREA AND PRODUCTION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Nor. Ter.	Aus. Cap. Ter.	Australia.
AREA.								
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1932-33..	113,333	16,425	98,487	5	8	..	2	228,260
1933-34..	117,231	19,538	166,948	18	14	..	12	303,761
1934-35..	115,570	18,727	160,607	30	34	..	13	294,981
1935-36..	119,849	20,377	157,370	3	..	..	17	297,616
1936-37..	116,286	20,115	181,266	..	38	..	5	317,710
Average 10 seasons 1928-37 ..	115,720	17,849	168,232	6	26	..	7	301,841

PRODUCTION.

	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1932-33..	2,935,140	477,145	1,653,853	135	42	..	6	5,066,321
1933-34..	3,133,890	644,033	3,715,764	150	183	..	60	7,494,080
1934-35..	3,238,560	719,360	4,142,079	450	216	..	132	8,100,827
1935-36..	3,324,780	638,643	3,504,045	108	..	..	129	7,467,705
1936-37..	3,302,520	794,506	3,148,814	..	486	..	57	7,246,383
Average 10 seasons 1928-37 ..	3,084,405	654,979	4,072,654	106	337	..	59	7,812,540

The greatest production of maize in Australia was recorded in 1910-11, when it amounted to over 13,000,000 bushels. A bountiful harvest in Queensland increased the Australian total to 12,400,000 bushels in 1924. The production in 1936-37 amounted to 7,246,383 bushels, and the average for the decennium ended 1936-37 was 7,812,540 bushels.

(ii) *Average Yield.* The following table gives particulars of the average yield per acre of the maize crops of the States for the seasons 1932-33 to 1936-37 and for the decennium 1928-1937:—

MAIZE.—AVERAGE YIELD PER ACRE.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	N. Ter.	Aus. Cap. Ter.	Australia.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1932-33 ..	25.90	29.05	16.79	27.00	5.25	..	3.00	22.20
1933-34 ..	26.73	32.96	22.26	8.33	13.07	..	5.00	24.67
1934-35 ..	28.02	38.41	25.79	15.00	6.35	..	10.15	27.46
1935-36 ..	27.74	31.34	22.27	36.00	..	..	7.59	25.09
1936-37 ..	28.40	39.50	17.37	..	12.79	..	11.40	22.81
Average for 10 seasons 1928-37	26.65	36.70	24.21	17.67	12.96	..	8.43	25.88

The average for Victoria is generally amongst the highest in the world. The area, however, is comparatively small and is situated in specially favourable districts. The average for New South Wales is generally higher than for Queensland.

(iii) *Production per Acre—Various Countries.* The average for Australia for the past 10 years was 25.9 bushels per acre. During the period 1927-31 the United States of America averaged 25.0 bushels, Argentine Republic 31.9 bushels, Rumania 16.4 bushels, and the Soviet Union 14.5 bushels per acre.

3. *World's Production.*—The following table furnishes particulars of the world's acreage, production and average yield per acre of maize according to the data compiled by the International Institute of Agriculture :—

MAIZE.—WORLD'S PRODUCTION.

Year.				Area.	Production.	Average Yield per Acre.
				Million Acres.	Million Bushels.	Bushels.
Average 1927-31	..	..	..	200	4,354	21.78
1932 ..	..	..	..	217	4,925	22.78
1933 ..	..	..	..	213	4,334	20.39
1934 ..	..	..	..	203	3,697	18.16
1935 ..	..	..	..	203	4,283	21.03
1936 ..	..	..	..	201	3,775	18.79

The United States is the most important maize-producing country in the world. Approximately 100,000,000 acres are planted there annually, and in normal seasons more than 2,000 million bushels are reaped, representing about 50 per cent. of the world's production. About 85 per cent. of the production is fed to live stock on farms, 10 per cent. is used for human food, and only a very small fraction—less than one per cent.—is exported.

4. *Price of Maize.*—The average wholesale price of maize in the Sydney market for each of the last five years is given in the following table :—

MAIZE.—AVERAGE PRICE, SYDNEY.

Particulars.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	s. d.	s. d.	s. d.	s. d.	s. d.
Average price per bushel ..	3 6½	3 5	4 10½	5 3	5 2½

5. *Overseas Imports and Exports.*—The imports of maize into Australia during the five years ended 1934-35 were negligible, averaging less than 2,000 bushels compared with nearly 600,000 bushels during the five years ended 1929-30. In 1935-36 there was a comparatively large import into New South Wales from South Africa, but in 1936-37 imports were again small. Details of imports and exports for the years 1932-33 to 1936-37 are as follows :—

MAIZE.—IMPORTS AND EXPORTS, AUSTRALIA.

	Imports.		Exports.		Net Imports.	
	Quantity.	Value.(a)	Quantity.	Value.(a)	Quantity.	Value.(a)
	Bushels.	£	Bushels.	£	Bushels.	£
1932-33..	5,064	878	1,370	377	3,694	501
1933-34..	23	26	3,120	731	—3,097	—705
1934-35..	7	16	3,430	851	—3,423	—835
1935-36..	47,609	12,233	527	129	47,082	12,104
1936-37..	7,934	2,326	1,130	366	6,804	1,960

NOTE.—The minus sign (—) denotes net exports.

(a) Australian currency values.

6. **Maize Products.**—A small quantity of corn-flour is imported annually into Australia, the principal countries of supply being the United Kingdom, Union of South Africa and the United States of America. During the year 1929-30 the imports amounted to 702,062 lb., and represented a value of £7,956, but since then they have been unimportant. Exports from Australia are small, and in 1936-37 were only 4,524 lb., valued at £108.

7. **Value of Crop.**—The value of the crop for the season 1936-37 was as follows :—

MAIZE.—VALUE OF CROP, 1936-37.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	A.C.T.	Australia.
	£	£	£	£	£	£
Aggregate value ..	853,150	210,764	714,570	..	15	1,784,716
Value per acre ..	£7/6/9	£10/15/6	£3/18/10	..	£3/0/0	£5/12/4

(a) Including Western Australia, £217.

§ 7. Barley.

1. **Progress of Cultivation.**—(i) *Area and Production.* Despite wide annual fluctuations the area sown to barley has expanded considerably during the past ten years; the average annual area sown for the decennium 1928-37 amounted to 452,301 acres, compared with an average of 296,774 acres for the previous ten years. Victoria was originally the principal barley-growing State, but since 1913-14 South Australia has been the chief producing State, accounting for 65 per cent. of the Australian acreage in 1936-37. Victoria was next in importance with 21 per cent., leaving a small balance of about 14 per cent. distributed among the other States. The figures here given relate to the areas harvested for grain; small areas only are sown for hay, but more considerable quantities are cut for green forage. These, however, are not included in this section. The area and production of barley for grain in the several States for the last five years and the average for the decennium 1928-37 are shown in the following table :—

BARLEY.—AREA AND PRODUCTION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
AREA.							
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1932-33.. ..	7,736	93,555	4,790	314,286	13,772	8,595	(a) 442,833
1933-34.. ..	10,006	106,339	8,765	307,423	24,534	7,840	(b) 464,959
1934-35.. ..	9,480	87,599	9,604	316,807	26,580	5,779	(c) 455,921
1935-36.. ..	11,583	116,371	6,380	393,741	31,568	5,227	564,870
1936-37.. ..	12,004	100,003	6,652	394,559	40,092	6,947	470,257
Average 10 seasons 1928-37 ..	8,925	90,766	6,748	290,327	21,854	6,561	(d) 425,232

PRODUCTION.

	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1932-33.. ..	154,530	1,995,446	101,033	6,070,101	135,243	211,570	(a) 8,670,077
1933-34.. ..	165,120	1,888,981	153,180	5,254,280	244,816	172,367	(b) 7,939,018
1934-35.. ..	168,990	1,609,518	156,604	5,682,923	237,765	175,503	(c) 8,032,455
1935-36.. ..	214,860	2,314,427	91,366	6,493,983	417,627	92,714	9,621,077
1936-37.. ..	205,890	2,143,109	37,378	4,260,462	449,235	240,693	7,336,767
Average 10 seasons 1928-37 ..	149,604	1,848,284	113,438	4,853,707	249,280	158,857	(d) 7,374,109

(a) Including Australian Capital Territory, 99 acres, 2,094 bushels.
 (b) " " " " " " " " 52 acres, 1,044 bushels.
 (c) " " " " " " " " 63 acres, 1,152 bushels.
 (d) " " " " " " " " 51 acres, 933 bushels.

South Australia and Victoria were the only States producing more than 1,000,000 bushels on the average during the past decade, the yields being respectively 4,853,707 and 1,848,284 bushels, the higher return per acre in the latter State tending to diminish the advantage held by South Australia in regard to acreage.

(ii) *Malting and Other Barley.* (a) *Year 1936-37.* Particulars for the season 1936-37 are as follows:—

BARLEY, MALTING AND OTHER.—AREA AND PRODUCTION, 1936-37.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Malting Barley ..	6,448	83,802	4,319	264,286	28,412	6,530	393,797
Other Barley ..	5,556	16,201	2,333	40,273	11,680	417	76,460
Total ..	12,004	100,003	6,652	304,559	40,092	6,947	470,257
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
Malting barley ..	114,090	1,782,931	27,302	3,878,095	352,050	228,292	6,387,760
Other barley ..	91,800	360,178	10,076	382,367	97,185	12,401	954,007
Total ..	205,890	2,143,109	37,378	4,260,462	449,235	240,693	7,336,767

Taking Australia as a whole, about 84 per cent. of the area under barley in 1936-37 was sown with malting or English barley while the remainder consisted of Cape and other varieties. The proportion, however, varied largely in the several States. The disposal of barley during the season 1936-37 was as follows: malt works, 2,818,519 bushels; distilleries, 65,118 bushels; exports, 2,605,620 bushels; leaving a balance of approximately 1,847,510 bushels for feed, pearling and seed.

(b) *Progress of Cultivation.* The following table sets out the acreage and production of malting and other barley in Australia during the last five seasons:—

BARLEY, MALTING AND OTHER.—AREA AND PRODUCTION, AUSTRALIA.

Season.	Acres.			Bushels.			Average Yield per Acre.		
	Malting.	Other.	Total.	Malting.	Other.	Total.	Malting.	Other.	Total.
1932-33 ..	399,731	43,102	442,833	7,837,111	832,966	8,670,077	19.60	19.33	19.58
1933-34 ..	410,178	51,581	461,759	7,013,709	945,249	7,959,018	17.09	17.35	17.12
1934-35 ..	395,243	60,678	455,921	6,990,756	1,041,699	8,032,455	17.60	17.17	17.62
1935-36 ..	485,870	70,000	555,870	8,112,712	1,211,865	9,324,577	17.31	15.35	17.04
1936-37 ..	393,797	76,460	470,257	6,382,760	954,007	7,336,767	16.20	12.48	15.60
Average 10 seasons 1928-37 ..	368,474	56,758	425,232	6,402,969	971,140	7,374,109	17.38	17.11	17.34

During the past ten seasons the area and production of malting barley have represented about six times the corresponding figures for other barley. The average yield per acre differs very little in respect of the two classes, the results for the last ten-yearly period being slightly in favour of the Malting variety.

(iii) *Average Yield.* The average yield of barley per acre varies considerably in the different States, being as a rule highest in Tasmania and Victoria, and lowest in Western Australia. Details for each State during the last five seasons, and for the decennium 1928-37, are given in the following table:—

BARLEY.—YIELD PER ACRE.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	Bushels.	Bushels.*	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1932-33	19.98	21.33	21.09	19.31	9.82	24.62	19.58
1933-34	16.50	17.76	17.40	17.09	13.34	21.97	17.12
1934-35	17.83	18.37	16.31	17.94	8.94	30.37	17.62
1935-36	18.55	19.89	14.32	16.49	13.23	17.74	17.04
1936-37	17.15	21.43	5.62	13.99	11.21	34.65	15.60
Average for 10 seasons 1928-37	16.76	20.37	17.51	16.72	11.41	24.21	17.34

2. *Comparison with Other Countries.*—In comparison with the barley production of other countries, that of Australia appears extremely small. Particulars for some of the leading countries during 1936 are as follows:—China, 359 million bushels; Germany, 150 million bushels; United States, 142 million bushels; India, 104 million bushels; Turkey, 95 million bushels; and Canada, 69 million bushels. Details of production in the Soviet Union are not available for 1936 but in 1935 production approximated 360 million bushels.

3. *World's Production.*—The following table shows the world's acreage under barley, together with the production and average yield per acre, according to the results compiled by the International Institute of Agriculture:—

BARLEY.—WORLD'S PRODUCTION.

Period.				Area.	Production.	Average Yield per Acre.
				Million Acres.	Million Bushels.	Bushels.
Average 1927-31	..	..	..	89.5	1,771	19.77
1932	..	..	..	90.4	1,797	19.81
1933	..	..	..	87.3	1,774	20.34
1934	..	..	..	88.2	1,678	19.09
1935	..	..	..	95.1	1,861	19.63
1936	..	..	..	87.3	1,606	18.40

4. *Prices.*—The average prices in the Melbourne market during each of the last five years are given in the following table:—

BARLEY.—AVERAGE MELBOURNE PRICES PER BUSHEL.

Particulars.		1933-34.	1934-35.	1935-36.	1936-37.	1937-38
		s. d.	s. d.	s. d.	s. d.	s. d.
Malting barley	..	2 8	2 11	2 10½	4 0½	4 1½
Cape barley	..	2 3½	2 5	2 5	3 7	3 7

5. **Imports and Exports.**—Australian exports of barley during the last five years averaged 2,946,500 bushels. The grain was consigned mainly to the United Kingdom, New Zealand and Belgium. South Australia being the principal exporting State. Particulars of the Australian overseas imports and exports for the last five years are contained in the following table:—

BARLEY.—IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.(a)	Quantity.	Value.(a)	Quantity.	Value.(a)
	Bushels.	£	Bushels.	£	Bushels.	£
1932-33	1,396	470	3,051,138	352,152	3,049,742	351,682
1933-34	134	59	2,701,908	305,359	2,701,774	305,300
1934-35	12	5	2,901,708	394,466	2,901,696	394,461
1935-36	2	3	3,472,084	369,391	3,472,082	369,388
1936-37	126	69	2,605,620	504,495	2,605,494	504,426

(a) Australian currency values.

In some years there is an export of Australian pearl and scotch barley, the total for 1936-37 reaching 18,330 lb., valued at £183, consigned mainly to the Pacific Islands.

6. **Imports and Exports of Malt.**—In pre war times the imports of malt into Australia were fairly extensive, the supply being obtained principally from the United Kingdom. Since 1914, however, imports have practically ceased. The production of malt in Australia is more than sufficient to meet local requirements and the surplus is shipped chiefly to the East and New Zealand. Details of imports and exports for the five years ended 1936-37 are given in the next table:—

MALT.—IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.(a)	Quantity.	Value.(a)	Quantity.	Value.(a)
	Bushels.	£	Bushels.	£	Bushels.	£
1932-33	..	..	9,950	3,358	9,950	3,358
1933-34	178	197	24,472	8,259	24,294	8,062
1934-35	152	74	55,990	17,209	55,838	17,135
1935-36	300	195	62,518	19,457	62,218	19,262
1936-37	395	217	123,463	40,352	123,068	40,135

(a) Australian currency values.

7. **Value of Barley Crop.**—The estimated value of the barley crop for the season 1936-37 and the value per acre are shown in the following table:—

BARLEY.—VALUE OF CROP. (a), 1936-37.

Value.	S.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
Total	46,150	450,871	8,297	883,218	85,685	47,830	1,522,051
Per acre	£3/16/11	£4/10/2	£1/4/11	£2/18/0	£2/2/9	£6/17/8	£3/4/9

(a) Exclusive of the value of straw.

§ 8. Rice.

Experimental rice cultivation was carried on at the Yanco Experimental Farm for a number of years, but it was not until 1924-25 that an attempt was made to grow the crop on a commercial basis. In that year production amounted to 16,240 bushels from 153 acres, or an average of 106 bushels per acre. Favoured by tariff protection and high average yields the development of rice culture in the Murrumbidgee Irrigation Area made rapid progress, and the production now exceeds the annual requirements of Australia. During the past five years an annual average of 543,000 bushels of cleaned and uncleaned rice has been exported from Australia, mainly to the United Kingdom, New Zealand, Canada and the Pacific Islands.

Figures relating to area, production, etc., since 1931-32 will be found in the following table:—

RICE.—AREA, PRODUCTION, ETC., AUSTRALIA.

Year.	Area.	Production Paddy Rice.	Average Yield.	Imports.	Exports.	Retail Price.
	Acres.	Bushels.	Bushels.	Bushels.	Bushels.	Pence per lb.
1931-32 ..	19,589	1,349,869	68.91	96,101	292,453	3.48
1932-33 ..	22,034	1,901,476	86.30	104,846	260,245	3.24
1933-34 ..	20,226	2,171,544	107.36	98,495	516,437	3.24
1934-35 ..	21,746	1,888,445	88.84	89,981	629,738	3.22
1935-36 ..	21,715	2,163,580	99.64	101,571	537,174	3.27
1936-37 ..	23,384	2,276,575	97.36	77,693	769,119	3.07

The production from several small experimental plots in States other than New South Wales is included in the above figures, but the quantity is negligible.

§ 9. Other Grain and Pulse Crops.

In addition to the grain crops already specified, the principal other grain and pulse crops grown in Australia are beans, peas and rye. The total area under the first two mentioned crops for the season 1936-37 was 48,157 acres, giving a yield of 778,113 bushels, or an average of 16.16 bushels per acre, which was more than the average yield for the decennium ended 1936-37, viz., 14.73 bushels per acre. Beans and peas are grown chiefly in Tasmania, South Australia and Victoria. Peas are exported in considerable quantities to the United Kingdom, the chief exporting State being Tasmania. The total area under rye in Australia during the season 1936-37 was 10,156 acres, yielding 126,011 bushels, or an average of 12.41 bushels per acre, as compared with the average of 13.03 bushels for the last ten seasons. Of the total area sown to rye in 1936-37, about 62 per cent. was located in New South Wales, 22 per cent. in South Australia and 12 per cent. in Victoria.

§ 10. Potatoes.

1. Progress of Cultivation. —(i) *Area and Production.* Victoria possesses peculiar advantages for the growth of potatoes, as the rainfall is generally satisfactory, and the climate is unfavourable to the spread of Irish blight; consequently the crop is grown in nearly every district except in the wheat belt. Tasmania comes next in order of importance, followed by New South Wales.

The area and production of potatoes in each State during the last five years and the average for the decennium 1928-37 are given hereunder :—

POTATOES.—AREA AND PRODUCTION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Ans. Cap. Ter.	Australia.
AREA.								
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1932-33 ..	20,739	69,783	9,743	6,454	4,971	35,769	11	2147,485
1933-34 ..	20,089	60,856	11,936	5,824	4,462	36,518	7	139,692
1934-35 ..	19,662	54,214	11,066	4,664	4,050	36,358	15	130,629
1935-36 ..	22,743	44,287	13,620	4,612	4,046	34,719	62	124,989
1936-37 ..	24,909	45,627	13,448	4,657	4,324	36,967	88	130,020
Average 10 seasons								
1928-37..	19,016	61,714	10,737	5,057	5,007	36,933	25	6138,492
PRODUCTION.								
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1932-33 ..	42,403	182,471	14,017	24,814	22,309	98,232	25	384,271
1933-34 ..	43,532	142,132	20,123	19,501	21,204	81,274	9	327,775
1934-35 ..	46,033	109,329	21,627	19,377	19,162	70,018	17	285,563
1935-36 ..	62,882	104,125	24,765	19,257	26,278	85,806	127	323,240
1936-37 ..	66,255	196,623	15,826	20,923	22,916	138,557	218	461,318
Average 10 seasons ..								
1928-37..	42,474	165,676	17,385	19,352	22,151	96,976	48	364,062
(a) Includes Northern Territory, 15 acres.								
(b) " " " " 3 acres.								

The acreages sown during the last ten years were fairly uniform, except in 1927-28, when the area was increased to 163,231, chiefly owing to larger plantings in Victoria and Tasmania. Owing to excellent yields in Victoria and Tasmania the production in 1936-37 amounted to 461,318 tons, as compared with an average of 364,062 tons for the ten years ended 1936-37 and 345,779 tons for the previous decennial period. The record production of 507,153 tons was obtained in 1906-7.

(ii) *Average Yield.* Particulars for each State for the five seasons ended 1936-37 and for the decennium ended 1936-37 are given hereunder :—

POTATOES.—AVERAGE YIELD PER ACRE.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus. Cap. Ter.	Australia.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1932-33 ..	2.04	2.61	1.44	3.84	4.49	2.77	2.27	2.61
1933-34 ..	2.17	2.34	1.60	3.35	4.75	2.23	1.29	2.35
1934-35 ..	2.34	2.02	1.82	4.15	4.73	1.92	1.13	2.19
1935-36 ..	2.76	2.35	1.82	4.18	5.31	2.47	2.05	2.59
1936-37 ..	2.66	4.31	1.18	4.49	5.30	3.75	2.48	3.55
Average for 10 seasons 1928-37..	2.23	2.68	1.62	3.83	4.42	2.63	1.92	2.63

Compared with the average yield per acre obtained in other countries, that returned for Australia is very low; the production in New Zealand, for example, in 1936-37 averaged 5.62 tons per acre from an area of 22,500 acres, as compared with 3.55 tons per acre from 130,000 acres in Australia.

(iii) *Relation to Population.* The average annual production of potatoes per head of the population of Australia for the last five seasons was approximately 119 lb. In Tasmania, where this crop is of far greater importance in relation to population than is the case in any other State, the production per head in 1906-7 was nearly a ton, while for the last five seasons it has averaged $8\frac{1}{4}$ cwt. Details for each State for the five seasons ended 1936-37 are as follows :—

POTATOES.—PRODUCTION PER 1,000 OF POPULATION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus. Cap. Ter.	Australia.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1932-33 ..	16	101	15	43	51	431	3	58
1933-34 ..	17	78	21	34	48	355	1	49
1934-35 ..	17	59	23	33	43	306	2	43
1935-36 ..	24	56	25	33	59	373	13	48
1936-37 ..	25	106	16	35	51	596	22	68

(iv) *Consumption.* The consumption in Australia during the last five years averaged about 44 tons per 1,000 of population, or about 99 lb. per head. From the figures shown above, therefore, it is apparent that New South Wales, Queensland and South Australia do not produce the quantities necessary for their requirements and must import from Tasmania and Victoria which have a surplus.

2. *Imports and Exports.*—Under normal conditions small quantities of potatoes are exported, principally to the Pacific Islands and Papua. In case of a shortage in Australia, supplies are usually obtained from New Zealand. Figures showing the trade for the last five years are given in the following table :—

POTATOES.—IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		• Exports.		Net Exports.	
	Quantity.	Value. (a)	Quantity.	Value. (a)	Quantity.	Value. (a)
	Tons.	£	Tons.	£	Tons.	£
1932-33 ..	47	753	1,859	12,484	1,812	11,731
1933-34 ..	29	348	1,940	12,639	1,911	12,291
1934-35 ..	..	18	1,165	12,510	1,165	12,492
1935-36 ..	19	364	1,363	14,034	1,344	13,670
1936-37 ..	1	13	1,368	12,641	1,367	12,628

(a) Australian currency values.

3. *Value of Potato Crop.*—The estimated value of the potato crop of each State for the season 1936-37 is given in the following table :—

POTATOES.—VALUE OF CROP, 1936-37.

Value.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus. Cap. Ter.	Australia.
	£	£	£	£	£	£	£	£
Total ..	514,300	614,447	170,130	105,137	210,302	549,030	1,692	2,165,038
Per acre ..	£20/12/11	£13/9/4	£12/13/0	£22/11/6	£48/12/6	£14/17/0	£10/4/6	£16/11/0

§ 11. Other Root and Tuber Crops.

1. *General.*—Root crops, other than potatoes, are not extensively grown in Australia, the total area under such crops for the season 1936-37 being only 29,622 acres. The most important were onions, mangolds, sugar beet, turnips and sweet potatoes. Of these, onions, sugar beet and mangolds are most largely grown in Victoria, turnips in Tasmania, and sweet potatoes in Queensland. The total area under onions in Australia during the season 1936-37 was 7,741 acres, giving a yield of 52,732 tons, and averaging

6.81 tons per acre. The area in 1930-37 under root crops other than potatoes and onions was 21,881 acres, from which a production of 144,687 tons was obtained, or an average of 6.61 tons per acre. The areas and yields here given are exclusive of the production of "market gardens," reference to which is made in § 17 par. 2.

2. Imports and Exports.—The only root crop, other than potatoes, in which any considerable oversea trade is carried on by Australia is that of onions. During the last five years 4,673 tons, valued at £A.32,253, were imported, principally from Japan, the United States of America and New Zealand, while during the same period the exports, which amounted to 11,441 tons, valued at £A.79,085, were shipped mainly to New Zealand, the Pacific Islands, the Philippine Islands and Canada.

§ 12. Hay.

1. General.—(i) *Area and Production.* As already stated, the chief crop in Australia is wheat grown for grain. Next in importance is hay, which for the season 1936-37 averaged 15 per cent. of the total area cropped. In most European countries the hay consists almost entirely of meadow and other grasses, but in Australia a very large proportion consists of wheat, oats and lucerne. The area under hay of all kinds in the several States during the last five years is given hereunder.

HAY.—AREA AND PRODUCTION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Aus. Cap. Ter.	Aus- tralia.
AREA.								
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1932-33 ..	645,609	1,044,523	64,076	461,332	417,435	92,068	1,765	2,727,408
1933-34 ..	724,538	1,106,250	92,043	507,248	470,768	77,625	2,299	3,080,680
1934-35 ..	757,414	1,261,552	86,477	561,071	413,138	96,019	2,502	3,178,173
1935-36 ..	658,810	1,140,361	71,309	566,064	494,495	74,741	1,690	3,007,470
1936-37 ..	747,927	1,181,612	62,758	539,127	478,099	89,394	1,959	3,100,876
Average 10 seasons								
1928-37 ..	710,726	1,083,043	66,005	530,140	425,342	84,413	1,901	2,908,230
PRODUCTION.								
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1932-33 ..	908,931	1,386,028	82,104	505,589	485,308	141,138	1,889	3,571,047
1933-34 ..	920,480	1,353,700	144,250	539,846	512,439	100,397	2,540	3,582,748
1934-35 ..	1,004,761	1,464,264	154,157	571,133	462,947	150,083	3,363	3,810,708
1935-36 ..	837,386	1,346,953	122,687	586,658	504,571	96,888	2,534	3,497,677
1936-37 ..	917,499	1,403,049	73,787	501,003	412,982	130,871	2,456	3,447,647
Average 10 seasons								
1928-37 ..	912,635	1,286,104	101,564	545,004	458,979	122,008	2,344	3,428,638

Owing to various causes, the principal being the variation in the relative prices of grain and hay and the favourableness or otherwise of the season for a grain crop, the area under hay is liable to fluctuate considerably. The area under hay in Australia during the season 1915-16, 3,597,771 acres, was the largest on record, whilst the average during the last decennium amounted to 2,908,230 acres.

(ii) *Average Production.* During the last ten years Queensland and Tasmania show the highest average production per acre, although the area sown in these States is small. For the same period the lowest yield for Australia as a whole was that

of 21 cwt. per acre in 1929-30, while the highest was that of 26 cwt. in 1932-33. The average for the decennium was nearly 24 cwt. Particulars for the several States for the seasons 1932-33 to 1936-37 and the average for the ten years ended 1936-37 are given hereunder :—

HAY.—PRODUCTION PER ACRE.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus. Cap. Ter.	Aus- tralia.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1932-33	1.41	1.33	1.28	1.23	1.16	1.52	1.07	1.31
1933-34	1.27	1.13	1.55	1.06	1.07	1.41	0.92	1.16
1934-35	1.33	1.16	1.78	1.02	1.12	1.56	1.34	1.20
1935-36	1.27	1.18	1.72	1.04	1.02	1.30	1.50	1.16
1936-37	1.23	1.19	1.18	0.93	0.86	1.53	1.25	1.11
Average for 10 seasons 1928-37.. ..	1.28	1.19	1.54	1.02	1.08	1.45	1.20	1.18

(iii) *Varieties Grown.* Information in regard to the crops cut for hay is available for all States excepting Tasmania. It is known, however, that oaten hay constitutes the most important variety grown in the island State.

Details for the last five seasons are given in the following table :—

HAY.—VARIOUS KINDS GROWN.

Varieties.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
	Acres.	Acres.	Acres.	Acres.	Acres.
NEW SOUTH WALES—					
Wheaten	290,556	324,129	271,272	224,632	293,854
Oaten	248,222	275,493	349,174	328,866	342,334
Barley	955	933	1,354	930	912
Lucerne	105,246	123,280	134,703	103,478	110,422
Other	630	703	911	904	405
Total	645,609	724,538	757,414	658,810	747,927
VICTORIA—					
Wheaten	80,549	155,688	117,436	77,795	72,837
Oaten	860,854	945,855	1,016,205	926,293	940,058
Lucerne, etc. ..	94,120	94,716	127,911	136,273	168,717
Total	1,044,523	1,196,259	1,261,552	1,140,361	1,181,612
QUEENSLAND—					
Wheaten	5,498	6,058	3,472	1,780	5,250
Oaten	2,724	4,280	3,426	2,928	3,218
Lucerne	52,925	77,473	75,538	62,779	42,526
Other	2,929	5,132	4,041	3,813	11,755
Total	64,076	92,943	86,477	71,309	62,758
SOUTH AUSTRALIA—					
Wheaten	205,372	246,999	264,373	213,703	243,501
Oaten	243,015	247,879	280,710	334,529	277,413
Lucerne	3,704	3,572	4,444	5,093	3,944
Other	9,241	8,798	11,544	12,739	14,209
Total	461,332	507,248	561,071	566,064	539,127
WESTERN AUSTRALIA—					
Wheaten	173,327	216,688	138,980	214,406	201,792
Oaten	224,006	238,718	251,288	250,039	241,485
Lucerne	106	179	238	63	120
Other	19,996	24,183	22,623	29,987	34,702
Total	417,435	479,768	413,138	494,495	478,000

Wheat is most largely used for hay in South Australia, oats in New South Wales, Victoria, Western Australia and Tasmania, and lucerne in Queensland. For all States the proportions of the principal kinds of hay produced averaged 57.7 per cent. for oaten, 25.5 per cent. for wheaten, 8.6 per cent. for lucerne, and 8.2 per cent. for other hay.

2. **Comparison with Other Countries.**—As already noted, the hay crops of most European countries consist of grasses of various kinds, amongst which clover, lucerne, sainfoin and rye grass occupy prominent places. The statistics of hay production in these countries are not prepared on a uniform basis, consequently any attempt to furnish extensive comparisons would be misleading. It may be noted, however, that in Great Britain the production of hay from clover, sainfoin, etc., for the year 1936 amounted 2,252,000 tons from 1,735,528 acres, while from permanent grasses a yield of 4,976,000 tons of hay was obtained from 4,839,134 acres, giving a total of 7,228,000 tons from 6,574,662 acres, or an average of about 22 cwt. per acre.

3. **Imports and Exports.**—Under normal conditions, hay, whether whole or in the form of chaff, is somewhat bulky for oversea trade, and consequently does not in such circumstances figure largely amongst the imports and exports of Australia. During 1936-37, 241 tons were imported, while the exports amounted to 3,708 tons, valued at £21,858, the principal purchases being made by Malaya (British), India, Ceylon and Hong Kong.

4. **Value of Hay Crop.**—The following table shows the value, and the value per acre, of the hay crop of the several States for the season 1936-37:—

HAY.—VALUE OF CROP, 1936-37.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus. Cap. Ter.	Australia.
	£	£	£	£	£	£	£	£
Total Value ..	4,410,760	4,002,901	452,000	1,491,085	1,269,679	465,360	12,294	12,104,079
Value per acre ..	£5/17/11	£3/7/9	£7/4/1	£2/15/4	£2/13/1	£5/4/1	£6/5/6	£3/18/1

§ 13. Green Forage.

1. **Nature and Extent.**—A considerable area is devoted to the production of green forage, mainly in connexion with the dairying industry. Under normal conditions, the principal crops cut for green forage are maize, sorghum, rape and lucerne, while small quantities of sugar-cane also are so used. In certain circumstances the area sown to green forage may be supplemented by areas of cereals sown originally for grain. In an adverse season some cereal crops may show no promise of producing grain or even hay and consequently the area may be turned over to stock for grazing. Particulars concerning the area under green forage in the several States during each of the last five years are given in the following table:—

GREEN FORAGE.—AREA.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus. Cap. Ter.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1932-33	405,206	107,732	392,762	46,232	115,785	18,522	953	1,087,192
1933-34	444,946	121,737	311,462	70,147	146,402	25,689	699	1,121,082
1934-35	477,060	115,037	338,312	91,783	186,233	24,941	548	1,233,914
1935-36	610,401	111,056	379,651	98,121	197,931	25,500	548	1,423,208
1936-37	645,713	102,744	429,782	136,548	284,676	24,742	836	1,625,041

2. *Value of Green Forage Crops.*—The value of these crops is variously estimated in the several States, and the Australian total for the season 1936-37 may be taken approximately as £2,783,614, or about £1 14s. 3d. per acre.

§ 14. Sugar-cane and Sugar-beet.

1. *Sugar-cane.*—(i) *Area.* Sugar-cane for sugar-making purposes is grown only in Queensland and New South Wales, and much more extensively in the former than in the latter State. Thus, of a total area of 359,107 acres under sugar-cane in Australia for the season 1936-37, there were 338,686 acres, or about 94 per cent., in Queensland. Sugar-cane growing appears to have been started in Australia in or about 1862, as the earliest statistical record of sugar-cane as a crop is that which credits Queensland with an area of 20 acres for the season 1862-63. In the following season the New South Wales returns show an area of 2 acres under this crop. The area under cane in New South Wales reached its maximum in 1895-96 with a total of 32,927 acres. Thenceforward, with slight variations, it gradually fell to 10,490 acres in 1918-19, but from that year it expanded until 1924-25, when about 20,000 acres were planted. Since 1924-25, the area has fluctuated between 15,000 acres and 20,000 acres, the average for the decennium ended 1936-37 amounting to 17,150 acres. In Queensland, although fluctuations in area are manifest, the general trend has been upwards, the acreage under cane for the season 1936-37 being the highest on record. The area under sugar-cane in Australia from 1932-33 and the average for the decennium ended 1936-37 are given in the following table:—

SUGAR-CANE.—AREA.

Season.	New South Wales.		Queensland.		Australia.		Total.
	Pro- ductive.	Unpro- ductive.	Pro- ductive.	Unpro- ductive.	Pro- ductive.	Unpro- ductive.	
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1932-33	7,796	8,349	205,046	86,090	212,842	94,439	307,281
1933-34	10,015	6,914	228,154	83,756	238,169	90,670	328,839
1934-35	7,572	10,959	218,426	85,500	225,998	96,459	322,457
1935-36	10,416	9,794	228,515	86,185	238,931	95,979	334,910
1936-37	10,231	10,190	245,918	92,768	256,149	102,958	359,107
Average 10 seasons 1928-37	8,522	8,628	221,571	80,051	230,093	88,679	318,772

(ii) *Productive and Unproductive Cane.* The areas given in the preceding table do not include the small acreage cut for green forage which in 1936-37 amounted to 6,316 acres in Queensland. The whole area was not necessarily cut for crushing during any one season, there being always a considerable amount of young and "stand-over" cane, as well as a small quantity required for plants. Thus the season in which the highest acreage is recorded may not show the greatest area of productive cane cut for crushing.

(iii) *Production of Cane and Sugar.* For Queensland, statistics of the production of sugar-cane are not available prior to the season 1897-98. In that season the total for Australia was 1,073,883 tons, as against the maximum production of 5,445,740 tons in 1936-37. The average production of cane during the decennium ended 1936-37 was 4,350,856 tons. With the exception of 1932-33, the yield of sugar during each of

the six years ended 1936-37 has exceeded 600,000 tons. The average for the decennium amounted to 598,432 tons. Particulars relative to the total production of cane and sugar for the last five years are as follows. The average for the ten seasons ended 1936-37 is also included for comparison:—

SUGAR-CANE.—PRODUCTION OF CANE AND SUGAR.

Season.	New South Wales.		Queensland.		Australia.	
	Cane.	Sugar.	Cane.	Sugar.	Cane.	Sugar.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1932-33	156,818	18,567	3,546,370	514,027	3,703,188	532,594
1933-34	230,918	27,586	4,667,122	638,559	4,898,040	666,145
1934-35	227,424	29,428	4,271,380	611,161	4,498,804	640,589
1935-36	280,472	36,461	4,220,435	610,080	4,500,907	646,541
1936-37	275,169	38,158	5,170,571	744,676	5,445,740	782,834
Average 10 seasons						
1928-37	207,162	25,137	4,143,694	573,295	4,350,856	598,432

The production of raw sugar in Australia in 1936-37 amounted to 782,834 tons manufactured from 5,445,740 tons of cane, and was greatly in excess of the previous highest recording of 666,145 tons in 1933-34. Official data are not available regarding the total number engaged in the sugar industry in Queensland, other than the number of growers and employees in sugar mills which in 1936-37 totalled 7,784 and 4,634 respectively. In the report of the Sugar Inquiry Committee, 1931, however, it was stated that the number of persons employed in all branches of the industry was 28,737. In addition, there is the employment afforded in New South Wales, particulars of which are not available, but the number is probably in the vicinity of 2,000.

Final figures for the 1937-38 season are not yet complete, but latest estimates indicate a yield of 795,000 tons of raw sugar from 5,410,000 tons of cane crushed.

(iv) *Average Production of Cane and Sugar.* Owing to climatic variation, comparison between the average yields of cane per productive acre in Queensland and New South Wales cannot be accurately made except on an annual basis. In New South Wales the crop matures in from 20 to 24 months, whereas in Queensland a period of from 12 to 14 months is sufficient. Allowing for the disparity in maturing periods, the average annual yields of cane per productive acre during the decennium ending 1930-37 were 13.26 tons for New South Wales, and 17.26 tons for Queensland. Similarly, the yields of sugar per acre crushed for the same period were estimated at 1.01 tons and 2.39 tons respectively. Leaving aside the consideration mentioned above, the yields of cane and sugar per acre crushed for Australia for the ten years ended 1930-37 were 18.91 tons and 2.60 tons respectively, as compared with 17.70 tons and 2.23 tons for the decennium ended 1926-27.

(v) *Quality of Cane.* The quantity of cane required to produce a ton of sugar varies with the variety planted, the district and the season. For the decennium ended 1930-37 it took 7.27 tons of cane to produce 1 ton of sugar or 13.70 per cent. of its total weight. As the result of the systematic study of cane culture in Queensland and improvements in field and mill methods the sugar content of the cane has been considerably increased in recent years, and in 1930-31 only 6.83 tons of cane were required to produce one ton of sugar. It is believed that this is the highest sugar content obtained anywhere in the world. During the ten years ended 1920-27 it required on the average 7.92 tons of cane to produce one ton of sugar in Australia, whereas the average figure for the decennium ended 1936-37 was reduced to 7.27 tons.

SUGAR-CANE AND SUGAR.—YIELD PER ACRE.

Season.	New South Wales.			Queensland.			Australia.		
	Cane per acre Crushed.	Sugar per acre Crushed.	Cane to each ton of Sugar.	Cane per acre Crushed.	Sugar per acre Crushed.	Cane to each ton of Sugar.	Cane per acre Crushed.	Sugar per acre Crushed.	Cane to each ton of Sugar.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1932-33. ..	20.12	2.38	8.45	17.30	2.51	6.90	17.40	2.50	6.95
1933-34 ..	23.06	2.75	8.37	20.46	2.80	7.31	20.57	2.80	7.35
1934-35 ..	30.03	3.89	7.73	19.56	2.80	6.99	19.91	2.83	7.02
1935-36 ..	26.93	3.50	7.69	18.47	2.67	6.92	18.84	2.71	6.96
1936-37 ..	26.90	3.73	7.21	21.03	3.03	6.94	21.26	3.06	6.96
Average 10 seasons 1928-37.. ..	24.30	2.95	8.24	18.70	2.59	7.23	18.91	2.60	7.27

The Bureau of Sugar Experiment Stations in Queensland is rendering useful service to the sugar industry by advocating and demonstrating better methods of cultivation, the more scientific use of fertilizers, lime, etc., and by producing and distributing improved varieties of cane.

(vi) *Relation to Population.* The yield of raw sugar in Australia during the last five years was more than sufficient to supply local requirements, the average production during the period amounting to 218 lb. per head of population. Details for the period 1932-33 to 1936-37 are as follows:—

RAW SUGAR.—PRODUCTION PER HEAD OF POPULATION.

State.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
	lb.	lb.	lb.	lb.	lb.
New South Wales ..	16	24	25	31	32
Queensland ..	1,221	1,505	1,425	1,406	1,695
Australia ..	181	224	214	215	258

(vii) *Consumption.* The average annual consumption of raw sugar during the five years ended 1936-37 was estimated at 349,895 tons, equal to 116.92 lb. of raw sugar or 111.66 lb. of refined sugar per head of population. Sugar contained in jam, preserved fruit, milk, etc., exported during the period has been excluded in arriving at the figures quoted. The quantity of sugar used during the five years in factories is shown in the following table, the figures including, where necessary, estimates of consumption based on the sugar contents of the finished product. Particulars of sugar used in establishments not classified as factories are not available, and consequently the quantities shown below are deficient to that extent.

SUGAR.—CONSUMPTION IN FACTORIES, AUSTRALIA.

Factories.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
	Tons.	Tons.	Tons.	Tons.	Tons.
Aerated Waters and Cordials	5,639	5,779	6,490	7,786	8,905
Bacon Factories ..	50	60	66	165	276
Bakeries—including Cakes and Pastry ..	5,789	8,110	9,032	10,404	17,150
Biscuits ..	5,158	5,710	6,339	6,663	
Breweries ..	9,117	10,023	11,208	12,404	13,451
Condensed and Concentrated Milk ..	6,796	6,620	7,501	5,547	7,637
Confectionery, Ice Cream, &c.	18,101	17,685	20,350	21,123	24,800
Jams, Jellies and Preserved Fruit ..	28,667	26,108	28,022	31,930	40,849
Jelly Crystals ..	541	649	699	665	
Total ..	79,858	80,744	80,713	90,687	113,077

2. **Sugar-beet.**—(i) *Area and Production.* Victoria is the only State at present growing beets for sugar, and particulars in regard to acreage and production for the last four years and for the decennium 1917-26 are incorporated in the table below :—

SUGAR-BEET.—AREA AND PRODUCTION, VICTORIA.

Particulars.		Average 10 seasons 1917-26.	1933-34.	1934-35.	1935-36.	1936-37.
Area harvested ..	acres	1,516	3,234	3,062	3,165	3,475
Production ..	tons	17,450	50,625	40,788	37,634	31,079
Average per acre ..	"	11.51	15.65	13.32	11.89	8.94
Sugar produced ..	"	2,073	5,303	4,998	5,115	4,180

Seasonal conditions were not so favourable during 1936-37 and consequently reduced yields were recorded; the production from 3,475 acres amounted to 31,079 tons of beet which yielded 4,180 tons of sugar. The quantity of beet required to produce one ton of sugar was 7.43 tons as compared with 7.36 tons for the previous year. The average production of beets per acre was 8.94 tons, and the average for the ten years ended 1936-37 was 11.80 tons.

(ii) *Encouragement of Beet-growing.* The irrigation scheme on the Macallister River has provided an assured water supply for the district and has enabled the industry to expand. A fine grade of white sugar is manufactured at Maffra, and considerable quantities of beet pulp and molasses are distributed for stock feed.

3. **Sugar Bounties.**—Reference is made to the various Acts in connexion with sugar bounties and sugar excise tariffs in early issues of the Official Year Book. (See No. 6, pp. 394 to 396.)

4. **Sugar Purchase by Commonwealth Government.**—The steps taken by the Commonwealth Government in connexion with this matter are also referred to in the Official Year Book. (See No. 18, p. 720.)

5. **Sugar Agreement in Australia—Embargo on Imports, etc.**—By agreement between the Commonwealth and Queensland Governments in 1925, the embargo on the importation of foreign sugar, which was first introduced in September, 1915, was extended for three years from 1st September, 1925. The price of raw sugar needed for home consumption was fixed at £27 per ton, £1 of which was to defray administrative and general expenses of the Sugar Board and to provide special concessions to certain consumers of sugar. The embargo was later extended for a further period of three years until 1st August, 1931, on practically the same terms as previously. In response to representations, the Commonwealth Government appointed a Committee of Inquiry on the 23rd August, 1930, to report on the industry. The Committee consisted of eight members, representing the various interests concerned. The reports of the Committee were made available in March, 1931, and the renewal of the sugar agreement with certain modifications was recommended. The terms of the new agreement followed largely on those previously in force, particularly as regards the embargo on imports and fixation of prices. The assistance to the fruit industry was increased from an average of £180,000 per annum to £315,000 by way of grant from the sugar industry. The agreement was signed on 1st June, 1931, and was to remain in force for a period of five years from 1st September, 1931. In 1932, however, conferences arranged between the Commonwealth Government and representatives of the industry agreed to a reduction of $\frac{1}{2}$ d. per lb. in the retail price of sugar from 1st January, 1933, until the end of the period of the agreement (31st August, 1936). It was also decided to reduce the amount of the assistance to the fruit industry to £200,000. A renewal of the agreement for a period of five years commencing 1st September, 1936, was negotiated between the Commonwealth and Queensland Governments in July, 1935. No alteration was made in the wholesale or retail price of sugar, but an increase of £16,000 per annum was granted to the fruit industry.

6. **International Sugar Agreement.**—Delegates of 21 Nations representing 90 per cent. of producers met in London and entered into an agreement on 6th May, 1937, providing for the regulation of the production and marketing of sugar in the world during a period of five years from 1st September, 1937. The object of the agreement is to assure an adequate supply of sugar at a price not exceeding the cost of production, including a reasonable profit, to efficient producers. For this purpose, each country was given a basic annual export quota—Australia was allotted 400,000 long tons—which will be increased in proportion to any expansion in sugar consumption. By this means, and by limitations on stocks and measures to encourage more production, it is expected that the International Sugar Council, which has been established to administer the agreement, will be able to hold in proper balance the supplies and requirements of sugar.

7. **Net Return for Sugar Crop.**—Calculations by the Sugar Board regarding the disposal of the crop, net value of exports and the average price realized during each of the last five years will be found in the following table :—

SUGAR.—NET RETURN, ETC., FOR CROP, AUSTRALIA.

Year.	Percentage Exported. (a)	Net Value of Exports per Ton. (a)	Average Price per Ton for Whole Crop. (a)	Estimated Value of Crop.
	Per cent.	£ s. d.	£ s. d.	£
1933-34	47.89	8 0 6	16 6 3	10,640,318
1934-35	50.56	7 11 3	15 13 9	10,791,092
1935-36	47.97	7 18 9	16 5 11	11,010,892
1936-37	54.07	7 19 0	15 7 4	12,203,675
1937-38	54.94	8 6 0	15 7 6	(b)

(a) As supplied by the Queensland Sugar Board. (b) Not available.

The estimated value of the raw sugar produced has been taken from the audited accounts of the Queensland Sugar Board. The values stated represent the gross receipts from sales in Australia and overseas less refining costs, freight, administrative charges, etc., and export charges, but not deducting concessions to the fruit industry and other rebates which in 1936-37 amounted to £319,006. The value thus obtained represents the net market value of all raw sugar sold, and since 1933 is divided between the growers and millers in the approximate proportions of 70 per cent. and 30 per cent. respectively. Prior to that year the distribution was about two-thirds to the grower and one-third to the miller.

8. **Imports and Exports of Sugar.**—Owing to the embargo and the increased production of sugar in Australia the imports have practically ceased. Particulars concerning the imports and exports of cane sugar for the last five years are as follows :—

SUGAR.—IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value. (a)	Quantity.	Value. (a)	Quantity.	Value. (a)
	Tons.	£	Tons.	£	Tons.	£
1932-33	13	265	187,061	1,490,036	187,048	1,489,771
1933-34	3	48	307,980	2,295,203	307,977	2,295,155
1934-35	1	38	306,497	2,195,893	306,496	2,195,855
1935-36	22	415	299,902	2,175,504	299,880	2,175,089
1936-37	33	575	405,771	2,887,589	405,738	2,887,014

(a) Australian currency values.

9. **Sugar By-products.**—Large quantities of molasses are produced as a by-product in the sugar mills. Details for a series of years of the quantities produced and the proportions used for distilling, fuel, manure and other purposes will be found in Chapter XXIV. —Manufacturing. A distillation plant erected at the Plane Creek Central Sugar Mill, Mackay, was opened during 1927 and produces power alcohol of excellent quality.

A material known as "megass board" can be made from the residuum of crushed fibre after the removal of the sugar content from the sugar cane, and the possibility of the manufacture of artificial silk from the same material has also been considered. Up to the present, however, there is no record of commercial production of artificial silk, but a fibre board suitable for insulation and lining is now being produced.

10. **Sugar Prices.**—The prices of sugar in Australia from 1915 to 1941 are shown in the following table. During recent years the prices were fixed in accordance with the agreements referred to on page 710.

SUGAR.—PRICES FOR CONSUMPTION IN AUSTRALIA.

Date of Determination.	Raw Sugar.		Refined Sugar.	
	Price to Grower and Miller per Ton.		Wholesale Price per Ton.	Retail Price per lb.
	£ s. d.		£ s. d.	d.
19.7.15 to 15.1.16	18 0 0		25 10 0	3
16.1.16 to 30.6.17	18 0 0		29 5 0	3½
1.7.17 to 24.3.20	21 0 0		29 5 0	3½
25.3.20 to 30.6.20	21 0 0		49 0 0	6
1.7.20 to 31.10.22	30 6 8		49 0 0	6
1.11.22 to 30.6.23	30 6 8		42 0 0	5
1.7.23 to 21.10.23	27 0 0		42 0 0	5
22.10.23 to 31.8.25	26 0 0		37 11 4	4½
1.9.25 to 31.8.31	(a) 26 10 0		37 6 8	4½
1.9.31 to 4.1.33	26 0 0		37 6 8	4½
5.1.33 to 31.8.36	24 0 0		33 4 0	4
1.9.36 to 31.8.41	24 0 0		33 4 0	4

(a) The price of raw sugar for the years 1925 to 1937 was estimated at from £24 to £26 10s. per ton, but as the result of the values received for the surpluses exported, the actual price obtained in 1925-26 was £19 10s. 7d.; in 1926-27, £21 10s. 10d.; in 1927-28, £22 0s. 4d.; in 1928-29, £20 17s. 11d.; in 1929-30, £20 8s. 2d.; in 1930-31, £19 12s. 11d.; in 1931-32, £18 0s. 11d.; in 1932-33, £18 17s. 9d.; in 1933-34, £16 6s. 3d.; in 1934-35, £15 13s. 9d.; in 1935-36, £16 5s. 11d.; in 1936-37, £15 7s. 4d.; and in 1937-38, £15 17s. 4d.

§ 15. Vineyards.

1. **Progress of Cultivation.**—(i) *Area of Vineyards.* The date of introduction of the vine into Australia has been variously set down by different investigators, the years 1815 and 1828 being principally favoured. It would seem, however, that plants were brought out with the first fleet in 1788, consequently the Australian vine is as old as Australian settlement. As already mentioned, a report by Governor Hunter gives the area under vines in 1797 as 8 acres. From New South Wales the cultivation spread to Victoria and South Australia, and these States have now far outstripped the mother State in the area under this crop. In Queensland and Western Australia also, vine growing has been carried on for many years, but little progress has been made. In Tasmania the climate is not favourable to the growth of grapes. The purposes for which grapes are grown in Australia are three in number, viz.:—(a) for wine-making, (b) for table use, and (c) for drying. The total area under vines in the several States

during each of the last five years and the average for the decennium ended 1936-37 are given in the following table:—

VINEYARDS.—AREA.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1932-33 ..	15,444	39,144	1,868	52,479	5,511	There are no vineyards in Tasmania.	114,446
1933-34 ..	15,243	40,485	1,963	52,880	5,700		116,271
1934-35 ..	15,143	41,180	1,926	53,361	5,737		117,347
1935-36 ..	15,158	41,081	2,470	54,219	6,051		118,979
1936-37 ..	16,542	41,895	2,501	56,122	6,105		123,165
Average 10 seasons							
1928-37 ..	15,392	40,387	1,946	52,859	5,407		115,991

The total area under vines in Australia has shown a substantial expansion since 1860. This development has been interrupted from time to time, decreases occurring in 1896, the years between 1904 and 1910, and in 1914. Since the last named year the area increased without interruption from about 61,000 acres to more than 114,000 acres in 1924-25, due largely to the planting of varieties suitable for drying. Subsequently the area fluctuated somewhat but increased again to the record area of 123,165 acres in 1936-37.

(ii) *Report on the Wine Industry.* An investigation into conditions in the wine industry was undertaken by the Commonwealth Director of Development and the Senior Inspector of Excise, Department of Trade and Customs, and a comprehensive report was presented to Parliament on the 17th July, 1931.

(iii) *Wine Production, Bounties, etc.* The production of wine has not increased as rapidly as the suitability of soil and climate would appear to warrant, owing chiefly to two causes. In the first place Australians are not a wine-drinking people; it is estimated that they consume approximately 5 million gallons or 0.8 gallons per head per annum and consequently the local market is restricted. Secondly, the comparatively new and unknown wines of Australia must compete in the markets of the old world with the well-known and long-established brands from other countries. Continued efforts are being made to bring the Australian wines under notice, and with the assistance of a Commonwealth bounty on the export of fortified wine of specified strength, the industry has been greatly stimulated. Particulars of the Wine Export Bounty are shown in § 18 hereafter. The Wine Export Bounty Act 1930 which provided for payment at the rate of 1s. 9d. per gallon was replaced by a new Act in 1934 which fixed the rate at 1s. 3d. per gallon for the two years ending 28th February, 1937, and thereafter at a reduction of 1d. per gallon for each succeeding year until 1940 when it will be 1s. per gallon.

At the Imperial Economic Conference at Ottawa in 1932, the margin of preference granted by the Government of the United Kingdom was 2s. per gallon on Australian wines not exceeding 27 degrees of proof spirit. Hitherto the duties imposed were as follows:—Empire wines not exceeding 27 degrees, 2s. per gallon, foreign wines not exceeding 25 degrees, 3s. per gallon, a margin of preference of 1s. per gallon. The margin of 2 degrees in the strength of Empire wines is also considered a measure of preference. The bulk of the wine exported from Australia contains more than 27 degrees of proof spirit, and, under the duties in force in the United Kingdom in 1932, Australian wines of a strength exceeding 27 but under 42 degrees enjoy a preference of 4s. per gallon.

The quantity of wine produced in the several States during the last five seasons together with the average for the decennium ended 1936-37 is given in the table hereunder:—

WINE.—PRODUCTION.

Season.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	No production of wine in Tasmania.	Gallons.
1932-33 ..	2,075,737	1,610,649	35,301	12,260,971	435,003		16,417,661
1933-34 ..	1,813,034	1,691,391	31,796	10,032,012	427,458		13,995,691
1934-35 ..	1,539,274	1,276,176	38,050	12,914,905	496,252		16,264,657
1935-36 ..	2,567,812	1,683,049	22,569	13,023,587	430,941		17,727,958
1936-37 ..	2,944,494	1,818,917	29,121	15,026,502	348,960		20,167,994
Average 10 seasons 1928-37	1,957,652	1,591,068	37,116	12,410,928	384,703		16,381,467

2. Imports and Exports of Wine.—(i) *Imports.* The principal countries of origin of wine imported into Australia are France, Spain, Portugal and Italy, the bulk of the sparkling wines coming from France. The imports for the last five years are given hereunder:—

WINE.—IMPORTS, AUSTRALIA.

Year.	Quantity.			Value. (a)		
	Sparkling.	Other.	Total.	Sparkling.	Other.	Total.
	Gallons.	Gallons.	Gallons.	£	£	£
1932-33 ..	2,402	12,411	14,813	8,042	12,015	20,057
1933-34 ..	5,469	18,772	24,241	16,612	16,137	32,749
1934-35 ..	7,936	20,367	28,303	26,577	17,422	43,999
1935-36 ..	5,701	24,214	29,915	19,017	18,258	37,275
1936-37 ..	7,197	27,039	34,236	20,721	20,799	41,520

(a) Australian currency values.

(ii) *Exports.* Practically all of the wine exported from Australia is sent to the United Kingdom; approximately 200,000 gallons are sent to other countries. New Zealand absorbs the major portion of this quantity although exports to Canada have increased under the Canadian-Australian Trade Treaty; the former took 131,499 gallons valued at £53,629 while the latter imported 59,202 gallons valued at £25,185, during 1936-37. Exports for the last five years are given in the following table:—

WINE.—EXPORTS, AUSTRALIA.

Year.	Quantity.			Value. (a)		
	Sparkling.	Other.	Total.	Sparkling.	Other.	Total.
	Gallons.	Gallons.	Gallons.	£	£	£
1932-33 ..	1,656	3,096,114	3,097,770	2,392	788,409	790,801
1933-34 ..	5,289	3,063,449	3,068,738	6,683	796,705	803,388
1934-35 ..	4,111	3,392,570	3,396,681	5,854	806,334	812,188
1935-36 ..	4,070	3,705,557	3,709,627	5,649	928,955	934,604
1936-37 ..	3,400	4,085,563	4,088,963	6,231	1,038,198	1,044,429

(a) Australian currency values.

3. **Other Viticultural Products.**—(i) *Table Grapes.* Grapes for table use are grown in all the States except Tasmania but the greatest development in the industry has taken place in the drying of raisins and currants, particularly in Victoria and South Australia. The quantities of table grapes grown during the last five seasons are as follows :—

TABLE GRAPES.—PRODUCTION.

Season.			New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Australia.
			Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1932-33	..	..	5,401	4,008	2,165	957	2,679	15,210
1933-34	..	..	4,469	3,837	2,050	695	2,602	13,653
1934-35	..	..	3,638	3,113	1,900	646	3,214	12,511
1935-36	..	..	4,376	4,215	2,184	547	2,676	13,998
1936-37	..	..	5,107	3,754	2,058	582	2,720	14,221

(ii) *Raisins and Currants.* The quantities of raisins (sultanas and lexias) and currants dried during each of the last five seasons are given in the following table :—

RAISINS(a) AND CURRANTS.—PRODUCTION.

Season.		N. S. Wales.		Victoria.		South Aust.		Western Aust.		Australia.	
		Raisins.	Currants.	Raisins.	Currants.	Raisins.	Currants.	Raisins.	Currants.	Raisins.	Currants.
		tons.	tons.	tons.	tons.	tons.	tons.	tons.	tons.	tons.	tons.
1932-33	..	4,909	670	42,568	7,814	12,434	6,390	704	1,536	60,615	16,410
1933-34	..	3,922	721	33,962	7,476	12,480	8,018	595	1,323	50,959	17,538
1934-35	..	3,381	755	29,637	8,801	12,234	9,259	646	2,037	45,898	20,852
1935-36	..	4,158	864	35,486	4,421	10,508	5,871	778	1,958	50,930	13,114
1936-37	..	5,416	1,094	37,267	7,610	11,381	8,093	707	1,887	54,771	18,684
Average 10 seasons 1928-37		3,591	628	32,885	7,386	9,994	7,186	694	1,577	47,164	16,777

(a) Sultanas and Lexias.

4. **Imports and Exports of Raisins and Currants.**—The following table gives the oversea imports and exports of raisins and currants during each of the last five years :—

RAISINS AND CURRANTS.—IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value. (b)	Quantity.	Value. (b)	Quantity.	Value. (b)
RAISINS.						
	tons.	£	tons.	£	tons.	£
1932-33 ..	2	276	35,439	1,728,581	35,437	1,728,395
1933-34 ..	5	570	46,825	1,867,134	46,820	1,866,504
1934-35 ..	(c) 104	(c) 5,988	40,041	1,447,686	39,937	1,441,698
1935-36 ..	(a)	20	37,998	1,501,146	37,998	1,501,126
1936-37 ..	(a)	51	40,875	1,540,909	40,875	1,540,858
CURRANTS.						
	tons.	£	tons.	£	tons.	£
1932-33 ..	(a)	35	11,134	450,502	11,134	450,467
1933-34 ..	..	..	15,659	632,978	15,659	632,978
1934-35 ..	(a)	15	14,562	583,422	14,562	583,407
1935-36 ..	(a)	35	9,945	375,923	9,945	375,888
1936-37 ..	(c) 14	(c) 678	11,739	440,734	11,725	440,056

(a) Quantity negligible.

(b) Australian currency values.

(c) Re-imports.

Since 1912 Australia has not only produced sufficient raisins and currants for home consumption, but has been able to maintain a large export trade. The average annual production for the decennium ended 1936-37 was slightly under 64,000 tons, of which 48,640 tons were exported and about 15,360 tons were available for local requirements. The chief countries importing Australian raisins and currants are the United Kingdom, Canada and New Zealand, the quantities exported thereto in 1936-37 being, 57, 33 and 9 per cent. respectively. Exports to Canada have increased from 4,600 tons in 1928-29 to 16,804 tons in 1936-37. Under the terms of the agreement reached at the Imperial Economic Conference at Ottawa in 1932, the tariff in the United Kingdom on dried fruits imported from foreign countries was increased from 7s. per cwt. to 10s. 6d. per cwt. As already stated, the United Kingdom absorbs 57 per cent. of Australia's exports, and the preference given should prove of considerable benefit to the Australian grower. The existence of the Anglo-Grecian Trade Treaty, however, precludes any immediate prospect of an advance in the present rate of preference—2s. per cwt.—being secured on Australian currants imported into Great Britain.

§ 16. Orchards and Fruit Gardens.

1. *Progress of Cultivation.*—The greatest area under orchards and fruit gardens was attained in 1933-34 when 281,989 acres were planted. The total area under orchards and fruit gardens in the several States during the last five years is given in the following table:—

ORCHARDS AND FRUIT GARDENS.—AREA.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Ans. Cap. Ter.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1932-33 ..	83,900	77,173	30,578	20,100	20,026	32,774	58	273,627
1933-34 ..	90,227	76,045	31,511	28,809	20,658	33,679	70	281,989
1934-35 ..	87,035	76,254	30,646	29,167	20,811	33,779	70	277,762
1935-36 ..	82,702	75,788	28,544	29,122	21,667	33,372	76	271,271
1936-37 ..	87,887	76,760	28,828	29,755	22,143	32,285	66	277,724

2. *Varieties of Crops.*—(i) *General.* The varieties grown differ in various parts of the States, ranging from such fruits as the pineapple, paw-paw, mango and guava of the tropics to the strawberry, the raspberry and the currant of the colder parts of the temperate zone. The principal varieties grown in Victoria are the apple, peach, pear, orange, plum and apricot. In New South Wales, citrus fruits (oranges, lemons, etc.) occupy the leading position, although apples, peaches, plums, pears, cherries and bananas are extensively grown. In Queensland, the banana, the pineapple, the apple, the orange, the peach, the plum, and the coco-nut are the varieties most largely cultivated. In South Australia, in addition to the apple, orange, apricot, plum, peach and pear, the almond and the olive are extensively grown. In Western Australia, the apple, orange, pear, plum, peach, apricot and fig are the chief varieties. In Tasmania, the apple occupies nearly four-fifths of the fruit-growing area, but small fruits, such as the currant, raspberry and gooseberry are extensively grown, while the balance of the area is taken up with the pear, apricot, plum and cherry. The following tables give the acreage—bearing and non-bearing—under the principal kinds of fruit, and the quantity and value of fruit produced.

(ii) *Area.* The table hereunder shows the total acreage for 1936-37 :—

ORCHARDS AND FRUIT GARDENS.—AREA, 1936-37.

Fruit.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australian Capital Territory.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Apples ..	18,409	30,954	5,358	10,941	13,031	24,770	44	103,507
Apricots ..	2,045	4,141	304	3,173	702	1,371	3	11,739
Bananas ..	13,573	..	7,305	..	248	..	..	21,126
Cherries ..	3,778	1,397	13	958	50	102	1	6,299
Citrus—								
Oranges ..	20,750	5,367	3,534	4,694	3,059	..	..	41,929
Mandarins ..	4,345							
Lemons ..	2,872							
Other ..	585							
Nectarines and								
Peaches ..	8,316	12,416	1,465	1,875	1,089	75	6	25,242
Nuts ..	1,018	536	..	1,851	358	..	..	3,763
Pineapples ..	225	..	6,314	..	15	..	..	6,554
Pears ..	4,039	11,563	388	1,862	1,030	2,412	4	21,298
Plums and Prunes	5,718	4,468	1,249	2,527	1,136	543	6	15,647
Small fruits ..	23	801	175	379	45	2,939	..	4,362
Other fruits ..	2,191	3,418	2,339	989	655	73	2	9,667
Total ..	87,827	76,700	28,828	29,755	22,113	32,285	00	277,724

(a) Included with oranges, etc.

(iii) *Production.*—(a) *Quantities.* The production in 1936-37 is shown in the next table :—

ORCHARDS AND FRUIT GARDENS.—PRODUCTION, 1936-37.

Fruit.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australian Capital Territory.	Australia.
Apples .. bushel	1,410,685	2,873,327	215,279	841,504	1,045,359	4,611,000	1,702	10,998,866
Apricots ..	127,072	179,824	7,343	357,022	63,669	94,700	50	830,280
Bananas ..	1,615,402	..	723,622	..	30,151	..	..	2,369,175
Cherries ..	132,139	39,509	116	40,687	1,236	5,000	12	218,699
Citrus—								
Oranges ..	2,170,997	564,734	307,439	654,889	302,235	..	..	4,351,351
Mandarins ..	320,284	15,792						
Lemons ..	244,910	181,171						
Other ..	47,907	749						
Nectarines and								
Peaches ..	599,828	1,282,397	78,714	170,048	84,548	4,300	53	2,219,888
Nuts .. lb.	429,744	190,180	..	1,135,232	71,805	..	6	1,826,967
Pineapples .. dozen	34,293	..	1,227,734	..	832	..	..	1,262,859
Pears .. bushel	399,046	1,657,763	21,401	242,336	101,472	270,000	99	2,692,207
Plums and Prunes	412,210	285,448	64,663	168,017	86,593	98,000	198	1,115,129
Small Fruits .. cwt.	239	17,777	3,389	10,919	689	130,035	..	162,148

(b) *Values.* The value of production for the various classes of fruit for the year 1936-37 is given in the following table :—

ORCHARDS AND FRUIT GARDENS.—VALUE OF PRODUCTION, 1936-37.

Fruit	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australian Capital Territory.	Australia
	£	£	£	£	£	£	£	£
Apples ..	558,630	618,159	70,196	150,173	407,701	989,100	674	2,794,633
Apricots ..	73,360	49,452	5,085	114,671	26,529	19,700	29	288,826
Bananas ..	807,700	..	282,850	..	23,475	..	..	1,114,025
Cherries ..	121,480	27,656	185	20,852	2,396	2,000	11	174,580
Citrus—								
Oranges ..	701,980	209,512	109,637	210,641	120,422	..	..	1,470,943
Mandarins ..	107,010	5,843						
Lemons ..	84,866	64,165						
Other ..	18,970	265						
Nectarines and Peaches	250,800	303,679	35,708	49,154	30,656	910	23	681,930
Nuts ..	12,657	7,060	..	36,743	2,693	..	..	59,153
Pineapples ..	8,790	..	245,230	..	552	..	..	254,572
Pears ..	131,560	357,375	6,180	55,689	49,445	69,500	33	669,782
Plums and Prunes	173,180	50,020	25,450	38,889	27,565	18,000	82	333,186
Small Fruits ..	1,060	32,062	10,440	15,733	2,856	150,820	..	212,971
Other Fruits ..	51,603	81,847	58,374	10,947	21,166	1,400	17	237,554
Total ..	3,103,640	2,811,845	856,951	728,373	754,673	1,251,430	869	8,507,781

3. **Principal Fruit Crops.**—(i) *Area.* The area in Australia under the principal fruit crops for the year 1913-14 and for each of the last five years is shown hereunder :—

PRINCIPAL FRUIT CROPS.—AREA, BEARING AND NON-BEARING, AUSTRALIA.

Year.	Apples.	Bananas.	Citrus Fruits.	Peaches.	Pears.	Plums.(a)
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1913-14 ..	56,577	7,778	24,840	13,645	9,657	8,410
1932-33 ..	100,309	21,893	52,407	22,321	19,922	16,418
1933-34 ..	101,812	28,440	52,724	22,392	19,751	16,210
1934-35 ..	102,414	26,593	49,247	22,990	20,578	15,741
1935-36 ..	102,003	21,801	47,506	22,876	20,316	15,290
1936-37 ..	103,507	21,126	48,520	23,858	21,298	15,647

(a) Includes Prunes.

(ii) *Production*—(a) *Quantities.* In the next table the total production for the principal varieties of fruit grown in Australia is shown for the same periods :—

PRINCIPAL FRUIT CROPS.—PRODUCTION, AUSTRALIA.

Year.	Apples.	Bananas.	Citrus Fruits.	Peaches.	Pears.	Plums.(a)
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1913-14 ..	5,000,178	835,868	1,638,961	930,144	951,277	621,525
1932-33 ..	10,798,538	2,256,520	4,920,419	2,090,584	2,152,887	1,183,700
1933-34 ..	10,500,288	2,636,288	5,159,524	1,762,923	1,914,118	943,102
1934-35 ..	9,569,161	3,027,168	5,397,146	2,011,542	1,934,975	1,004,821
1935-36 ..	9,771,290	3,367,480	5,057,081	1,762,073	2,458,087	905,936
1936-37 ..	10,998,866	2,369,175	4,071,701	2,132,054	2,092,207	1,115,120

(a) Includes Prunes.

(b) *Values.* The value of the principal fruit crops during the periods mentioned is given in the subjoined table :—

PRINCIPAL FRUIT CROPS.—VALUE OF PRODUCTION, AUSTRALIA.

Year.	Apples.	Bananas.	Citrus Fruits.	Peaches.	Pears.	Plums.(a)
	£	£	£	£	£	£
1913-14 ..	1,132,427	157,710	719,808	306,433	258,235	135,654
1932-33 ..	2,266,713	907,820	1,528,067	699,296	504,634	327,172
1933-34 ..	2,249,108	1,013,812	1,540,767	455,021	465,875	243,549
1934-35 ..	2,581,568	900,657	1,444,203	572,643	499,937	269,626
1935-36 ..	2,500,361	915,409	1,575,662	554,094	639,429	268,669
1936-37 ..	2,794,633	1,114,025	1,686,569	640,433	669,782	333,186

(a) Includes Prunes.

4. **Imports and Exports of Fruit.**—(i) *General.* A considerable export trade in both fresh and dried fruits is carried on by Australia with overseas countries. The import trade in fresh fruits declined heavily during recent years owing to the imposition of a Customs duty of 1d. per lb. on imported bananas, which had previously been the chief variety of fresh fruit imported into Australia. Under the terms of the agreement reached at Ottawa in 1932, however, 40,000 centals of bananas may be admitted annually from Fiji at the rate of duty of 2s. 6d. per cental. The imports of dried fruits at present consist mainly of dates. The export trade in fresh and dried fruits has expanded greatly during recent years, the value of the shipments in 1936-37 amounting to £1,980,102 and £2,060,190 respectively. Apples constitute the bulk of the fresh fruit exported although the exports

of citrus fruits and pears are fairly considerable, and experiments are being conducted in regard to the dispatch of other fruits. Shipments of raisins and currants have increased greatly since 1914-15, and are mainly responsible for the growth in the dried fruits exports. Dried apricots also figure amongst the exports.

(ii) *Fresh Fruits.* Information with regard to the Australian oversea trade in fresh fruits is given hereunder :—

FRESH FRUITS.—IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.(a)	Quantity.	Value.(a)	Quantity.	Value.(a)
	lb.	£	lb.	£	lb.	£
1932-33 ..	5,186,400	34,462	275,080,400	2,417,982	269,894,000	2,383,520
1933-34 ..	6,219,200	33,592	240,290,800	2,011,731	234,071,600	1,978,139
1934-35 ..	4,212,300	20,247	226,132,000	1,777,331	221,919,700	1,757,084
1935-36 ..	3,720,500	18,910	248,865,300	1,969,580	245,144,800	1,950,670
1936-37 ..	3,704,000	19,986	249,329,200	1,980,102	245,625,200	1,960,116

(a) Australian currency values.

(iii) *Exports of Apples, Pears and Citrus Fruits.* The quantity and value of apples, pears and citrus fruits exported during each of the last five years are shown in the following table :—

APPLES, PEARS AND CITRUS FRUITS.—EXPORTS, AUSTRALIA.

Year.	Apples.		Pears.		Citrus Fruits.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Cental.	£	Cental.	£	Cental.	£
1932-33 ..	2,273,724	1,951,994	283,397	252,134	136,634	124,354
1933-34 ..	2,058,965	1,654,241	171,753	163,585	132,666	132,303
1934-35 ..	1,745,337	1,397,791	254,978	240,836	242,932	212,170
1935-36 ..	2,008,656	1,494,524	275,860	270,262	190,094	188,255
1936-37 ..	1,847,189	1,344,885	336,812	320,325	256,784	228,356

(iv) *Dried Fruits.* The quantity and value of oversea imports and exports of dried fruits, other than raisins and currants, for the last five years are shown below ; about 85 per cent. of the total imports consisted of dates obtained almost entirely from Iraq :—

DRIED FRUITS (a).—IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Imports.	
	Quantity.	Value. (b)	Quantity.	Value. (b)	Quantity.	Value. (b)
	lb.	£	lb.	£	lb.	£
1932-33	9,415,551	62,281	2,093,159	51,764	7,322,392	10,517
1933-34	8,302,384	71,594	5,674,816	151,573	2,627,568	— 70,979
1934-35	13,187,250	94,903	5,507,100	134,426	7,680,150	— 39,523
1935-36	11,912,272	86,590	4,144,611	110,423	7,767,661	— 23,833
1936-37	10,917,696	76,653	2,660,332	78,553	8,257,364	— 1,900

(a) Excluding raisins and currants referred to separately under Vineyards, § 15 par. 4. (b) Australian currency values.

NOTE.—The minus sign (—) signifies net exports.

(v) *Jams and Jellies.* Jams and jellies were exported in large quantities during the war years and in 1918-19 the record shipment of 79,277,500 lb., valued at £1,847,970, was dispatched from Australia. Since that year, however, the trade has dwindled, the value of the exports in 1936-37 amounting to only £106,433. Particulars relative to imports and exports during each of the last five years are as follows:—

JAMS AND JELLIES.—IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	lb.	£	lb.	£	lb.	£
1932-33	24,492	1,180	1,886,344	47,682	1,861,852	46,502
1933-34	16,159	909	2,245,262	55,958	2,229,103	55,049
1934-35	30,322	1,265	2,949,105	63,425	2,918,783	62,160
1935-36	50,010	1,910	7,019,191	134,796	6,969,181	132,886
1936-37	59,852	2,333	5,541,620	106,433	5,481,768	104,100

(a) Australian currency values.

(vi) *Preserved Fruit.* Details concerning the quantities and values of preserved fruit imported into Australia cannot readily be obtained, owing to the fact that in the Customs returns particulars concerning fruit and vegetables are in certain cases combined. The total value of fruit and vegetables preserved or partly preserved in liquid, or pulped, imported into Australia during 1936-37 was £27,530, or £38,481 in Australian currency. Overseas exports in 1936-37 were as follows—Apricots, 5,968,764 lb., £98,721; peaches, 28,241,127 lb., £406,190; pears, 26,379,322 lb., £417,345; pineapples, 1,941,370 lb., £39,347; and other, 7,102,564 lb., £130,093; or a total shipment valued at £1,091,696.

§ 17. Minor Crops.

1. *General.*—In addition to the crops previously dealt with, there are many others which, owing either to their nature, or to the fact that their cultivation has advanced but little beyond the experimental stage, do not occupy so prominent a position. Some of the more important of these are included under the headings—Market Gardens, Pumpkins and Melons, Nurseries, Grass Seed, Tobacco and Millet. Cotton growing has received considerable attention in the tropical portions of Queensland, and the prospects of establishing this industry are hopeful. The total area in Australia during the season 1936-37 devoted to crops not dealt with in previous sections was 245,178 acres, the major portion of which consisted of cotton, market gardens, grass seed, pumpkins and melons, canary seed and tobacco.

2. *Market Gardens.*—Under this head are included all areas on which mixed vegetables are grown. Where considerable areas are devoted to the production of one vegetable, such for instance as the potato, the onion, the melon, the tomato, etc., the figures are usually not included with market gardens, but are shown either under some specific head, or under some general head as "Other Root Crops," or "All Other Crops." The area under market gardens during each of the last five seasons is given hereunder:—

MARKET GARDENS.—AREA.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus. Cap. Ter.	Aus- tralia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1932-33 ..	6,047	18,249	992	1,896	3,807	804	55	31,850
1933-34 ..	5,664	20,010	833	2,105	3,281	779	61	32,733
1934-35 ..	6,696	20,728	801	1,994	3,024	869	13	34,125
1935-36 ..	7,026	20,633	950	1,555	3,074	812	52	34,102
1936-37 ..	7,335	20,790	1,105	1,499	3,399	752	48	34,928

3. **Grass Seed.**—The area under this crop during 1936–37, exclusive of New South Wales, for which complete figures as to area are not available, was 23,885 acres, of which 9,406 acres were in Victoria, 8,089 acres in Queensland, 4,359 acres in South Australia, 220 acres in Western Australia and 1,811 acres in Tasmania. The production for these States was 375,125 bushels. In addition to the areas planted above there were 16,976 acres sown to canary seed in Queensland, 3,753 acres in South Australia, 1,314 acres in Victoria and 303 acres in New South Wales, returning a yield of 67,434 bushels. This quantity, however, omits the production of New South Wales, particulars of which are not available.

4. **Tobacco.**—Tobacco growing some years ago promised to occupy an important place amongst the agricultural industries of Australia. Thus, as early as the season 1888–89, the area under this crop amounted to 6,641 acres, of which 4,833 were in New South Wales, 1,685 in Victoria, and 123 in Queensland. This promise was, however, not fulfilled, and after numerous fluctuations, in the course of which the Victorian area rose in 1895 to over 2,000 acres, and that in Queensland to over 1,000 acres, the total area declined considerably.

In all the States in which its cultivation has been tried, the soil and climate appear to be suitable for the growth of the plant, and the large import of tobacco in its various forms is an index of the market for a satisfactory product. The total net imports of tobacco into Australia during the year 1936–37 were valued at £A.1,886,188, while the net quantity of unmanufactured tobacco imported was 20,710,554 lb. valued at £A.2,013,401. The area under this crop in 1936–37 amounted to 11,572 acres which produced 5.2 million lb. Victoria with 5,492 acres and Queensland with 3,973 acres were the chief producing States.

It has been proved that suitable leaf can be grown, and efforts are now being directed to the elimination of disease, and to improving the quality and aroma of the finished product. As the result of an agreement with the Commonwealth Government, the Australian Tobacco Manufacturers agreed to purchase 7.2 million lb. of suitable leaf in 1931–32 at an average price of 2s. 3d. per lb.; actually more than 10.5 million lb. was purchased at an average of 2s. 1½d. per lb. The agreement was not renewed and the area declined from 26,272 acres in 1932–33 to 11,572 acres in 1936–37.

The following table furnishes details of the average area, production, etc., in quinquennial periods from 1901 to 1935, and annually from 1931–32 to 1936–37:—

TOBACCO.—AREA, PRODUCTION, ETC., AUSTRALIA.

Period.		Area.	Production.	Value.	Number of Producers Registered.
		Acres.	Lb.	£	No.
1901–05	.. .. .	1,412	1,174,976	{a}	387
1906–10	.. .. .	1,678	1,419,040	41,581	518
1911–15	.. .. .	2,490	2,106,160	65,615	470
1916–20	.. .. .	1,648	1,449,616	104,978	487
1921–25	.. .. .	2,677	1,962,576	158,748	925
1926–30	.. .. .	2,478	1,632,243	121,580	666
1931–35	.. .. .	15,856	6,580,566	631,038	..
1931–32	.. .. .	17,738	10,160,192	1,114,737	2,774
1932–33	.. .. .	26,272	9,723,056	960,565	5,527
1933–34	.. .. .	16,394	4,348,964	339,663	5,081
1934–35	.. .. .	8,429	3,113,315	256,655	4,205
1935–36	.. .. .	10,538	5,557,394	483,571	3,501
1936–37	.. .. .	11,572	5,198,352	437,446	3,168

(a) Not available.

In 1929 a Select Committee was appointed by the House of Representatives to report on the tobacco industry in Australia. The report of the Committee was submitted on 1st July, 1930, and among the recommendations made was one for the formation of a Tobacco Investigation Committee. This Committee was formed, and was financed jointly by the Commonwealth Government and the British-Australasian Tobacco Company, the Company undertaking to contribute up to £3,000 on the £ for £ basis. In 1933

another Committee was appointed. The recommendation of this Committee, which reported on 16th November, 1933, that the sum of £20,000 should be provided annually for five years to assist the States to continue economic and scientific investigations, was adopted and this amount has been included in the Budget for each year since 1933-34. £5,000 was allotted to the Council for Scientific and Industrial Research, and the balance was distributed among the States to provide additional services, £3,750 being allocated to each of the States of New South Wales, Victoria and Queensland, and £1,250 each to South Australia, Western Australia and Tasmania. The Council for Scientific and Industrial Research is investigating diseases affecting the tobacco plant, including work on disease-resisting varieties, and is making tests of smoking quality. The Council has been successful in discovering effective means of preventing blue mould, and consequently the development of the industry should proceed on much sounder lines than hitherto. The States are carrying out field investigations on disease resistance, selection, yield and quality improvement, and are conducting instructional, demonstrational and field experimental work.

5. **Pumpkins and Melons.**—The total area under this crop in Australia during 1936-37 was 28,202 acres, of which 4,486 acres were in New South Wales, 1,469 acres in Victoria, 21,211 acres in Queensland, 367 acres in South Australia, and 624 acres in Western Australia. The production for Australia amounted to 65,970 tons.

6. **Hops.**—Hop growing in Australia is practically confined to Tasmania and some of the cooler districts of Victoria, the total area for the season 1936-37 being 1,118 acres, of which 962 acres were in Tasmania, 142 acres in Victoria and a small area of 14 acres in Western Australia. The Tasmanian area, though still small, has increased during the past 33 years, the total for the season 1901-2 being 599 acres. In Victoria the area, which in 1901-2 was 307 acres, dwindled to 71 acres in 1918-19, then rose to 312 acres in 1925-26 and dropped to 142 in 1936-37. The cultivation of hops was much more extensive in Victoria some 50 years ago than at present, the area in 1883-84 being 1,758 acres. During the year 1936-37 the imports of hops exceeded the exports by 107,714 lb., valued at £A.8,046. New Zealand supplied the whole of the quantity imported.

7. **Flax.**—For many years flax was grown intermittently in the Gippsland district of Victoria, and attempts were made to introduce its cultivation into Tasmania and New South Wales, but without success. About the end of the year 1917 the shortage of flax fibre was acute, and endeavours were made by the Commonwealth Government to encourage local cultivation. The acreage in Victoria increased from 419 acres in 1917-18 to 1,611 acres in 1919-20, but fell to 179 acres in 1928-29. As the result of a bounty introduced in 1930 the area increased to 1,216 acres in 1930-31, but this expansion was not maintained during the years following. In 1936-37, 927 acres were planted in this State compared with 1,068 acres in the previous year.

The linseed flax industry has been the subject of two investigations during recent years. In 1933, the Development Branch of the Prime Minister's Department examined the industry and recommended in its report that any aggressive policy of expansion should be avoided. A second investigation was made under the direction of the Council for Scientific and Industrial Research in 1936. The report issued in that year indicated the possibility of developing the flax industry in Australia and that further investigation and experiment appeared to be justified. A special vegetable fibre section of the Council was established to carry out further studies of the problem. Largely as a result of the efforts of the Council, private enterprise is again attempting the development of the industry in Victoria.

Bounty was paid on flax and linseed grown in Australia between the years 1907 and 1918 and again for a period of five years ending 28th February, 1935. During these periods the total amounts disbursed as bounty were £2,376 and £2,839 respectively.

8. **Millet.**—Millet figures in the statistical returns of three of the States. The total area devoted thereto in 1936-37 was 5,384 acres, of which 3,358 acres were in New South Wales, 1,250 in Victoria, and 776 in Queensland. The particulars here given relate to millet grown for grain and fibre, the quantity for green forage being dealt with in the section relating thereto.

9. **Nurseries.**—In all the States fairly large areas are occupied as nurseries. Figures in regard to acreages under flowers, fruit trees, etc., are available for New South Wales, Victoria, South Australia, Western Australia, and Tasmania. During 1930-37 the areas in these States were 944, 1,339, 193, 160, and 145 acres respectively.

10. **Cotton.**—The cultivation of cotton was begun in Queensland in 1860, and ten years later the area cropped had increased from 14 acres to over 14,000 acres. The reappearance of American cotton in the European market on the conclusion of the Civil War gave a severe setback to the new industry, and the area declined continuously till 1888, when only 37 acres were planted. Later on the industry was revived, and manufacturing on a small scale was undertaken on two separate occasions at Ipswich, but low prices over a term of years checked development. In 1913 the Queensland Government made an advance of $1\frac{1}{2}$ d. per lb. on seed cotton, and ginned it on owner's account, the final return being equal to about $1\frac{3}{4}$ d. per lb. The rise in price enabled the Government to offer a guarantee of $5\frac{1}{2}$ d. per lb. for seeded cotton of good quality for the three years ended 31st July, 1923, and the area picked increased from 166 acres in 1920 to 50,186 acres in 1924. Guarantees were continued until 1926, when the Commonwealth Government granted a bounty of $1\frac{1}{2}$ d. per lb. on the better grades and $\frac{3}{4}$ d. on the lower grades of seed cotton grown in Australia. In addition to this direct assistance to the growers the Government subsidized the cotton-manufacturing industry by granting a graduated bounty, varying from $\frac{1}{4}$ d. to 1s. per lb., on all cotton yarn manufactured in Australia which contained 50 per cent. of home-grown cotton. This bounty, however, ceased to operate after 30th June, 1932. The Raw Cotton Bounty Act of 1934, which repealed the previous Acts, provided, *inter alia*, that a bounty of $5\frac{1}{4}$ d. per lb. to 30th November, 1935, $4\frac{3}{4}$ d. per lb. to 30th November, 1936, and $4\frac{1}{4}$ d. per lb. to 30th November, 1939, fluctuating according to variation in the Liverpool price, shall be payable on raw cotton produced in Australia from Australian grown seed. The amount of raw cotton for the purpose of the bounty was limited to the requirements of Australia plus 20 per cent. With the change over to the bounty system, a cotton pool was formed in Queensland under the Primary Products Pools Act, and a Cotton Board was elected to control the handling, financing and marketing of all cotton grown in the State.

The area under cultivation and the production in Queensland since the year 1926 are shown hereunder:—

COTTON.—AREA AND PRODUCTION, QUEENSLAND.

Year.						Area.	Yield of Unginned Cotton.
						Acres.	lb.
1926	..	..	..	..	..	18,743	9,059,907
1927	..	..	..	..	..	14,975	7,060,756
1928	..	..	..	..	..	20,316	12,290,910
1929	..	..	..	..	..	15,003	8,024,502
1930	..	..	..	..	..	22,652	17,022,897
1931	..	..	..	..	..	22,452	15,244,644
1932	..	..	..	..	..	29,995	6,270,116
1933	..	..	..	..	..	68,203	17,718,306
1934	..	..	..	..	..	43,397	26,924,179
1935	..	..	..	..	..	54,947	20,785,418
1936	..	..	..	..	..	62,200	19,198,660

11. **Coffee.**—Queensland is the only State in which coffee has been grown to any extent, and the results have not been satisfactory. The area under crop reached its highest point in the season 1901-2 with 547 acres. Thereafter the acreage fluctuated, but on the whole with a downward tendency, and in 1936-37 only 20 acres were recorded with a production of 9,230 lb.

12. **Other Crops.**—Miscellaneous small crops grown in Australia include tomatoes, rhubarb, artichokes, arrowroot, chicory and flowers.

§ 18. Bounties.

1. **Bounties.**—The bounties paid by the Commonwealth Government during the year ended 30th June, 1938, amounted to £461,402. This amount refers only to bounties paid under the Bounties Acts and does not include financial assistance given to wheat-growers and other primary producers under other Acts. Particulars of the assistance so rendered by the Commonwealth Government are furnished hereafter. Details of the amounts paid as bounty during the years 1933-34 to 1937-38 are as follows:—

BOUNTIES.—AUSTRALIA.

Articles on which Bounty was Paid.	Rate of Bounty Payable.(a)	Date of Expiry of Bounty.	Amount Paid.				
			1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Iron and Steel Products			£	£	£	£	£
Bounty Act—							
*Fencing Wire ..	£2 12s. per ton (d) ..	(e) 6th Nov., 1930	..	..	..	..	..
*Galvanized Sheets ..	£2 12s. per ton (b) ..	(e) 27th Mar., 1931	..	..	..	..	..
*Wire Netting ..	£3 8s. per ton (c) ..	..	9,838	10,644	10,050	8,167	11,711
Traction Engines ..	According to capacity, £40-£90 per tractor less 10 per cent. from 9th July, 1930, increased to 16 per cent. from 7th November, 1930, and to 40% from 11th July, 1931. Restored to original rate from 4th December, 1933	..	5,152	6,192	9,814	80,503	25,556
* Manufactured from Materials produced and manufactured in Australia							
Sulphur Bounty Act—							
Sulphur from Australian Pyrites and other Sulphide Ores or Concentrates	£2 5s. per ton ..	..	47,955	50,831	74,282	68,011	83,144
Flax and Linseed Bounties Act 1930 ..	Rates vary according to year	28th Feb., 1935	205	590	62		
Wine Export Bounty Act 1934-35—							
Fortified Wine, containing not less than 34 per centum of proof spirit, exported from Australia from 1st March, 1935, to 20th February, 1940	1s. 3d. per gallon from 1st March, 1935, to 28th February, 1937, reduced by 1d. per annum from 1938 to 1s. per gallon in 1940	29th Feb., 1940	183,981	184,330	194,467	214,886	184,693

(a) All bounties are subject to 20 per cent. reduction from 20th July, 1931, excepting those paid on gold, wine, wheat, fruit exported and raw cotton produced subsequent to 31st December, 1937. (b) Amount of Bounty raised to £3 12s. per ton on 1st January, 1928; to £4 10s. per ton from 1st January, 1930; reduced to £3 10s. on 21st June, 1930; and to £3 3s. on 10th July, 1930. Bounty ceased on 10th March, 1931, owing to increase in Customs duty. (c) Amount of Bounty reduced to £2 14s. per ton on 10th July, 1930; to £2 5s. 6d. per ton on 7th November, 1930; and to 12s. per ton from 11th July, 1931. (d) Amount of Bounty reduced to £2 6s. on 10th July, 1930. Bounty ceased on 6th November, 1930, owing to increase in Customs duty. (e) Date Bounty ceased.

BOUNTIES.—AUSTRALIA—continued.

Articles on which Bounty was paid.	Rate of Bounty Payable.(c)	Date of Expiry of Bounty.	Amount Paid.				
			1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Cotton Bounty Act— Seed Cotton grown in Australia and delivered and graded as prescribed	Varies on Higher Grades from 1½d. per lb. up to 1932, to ½d. per lb. in 1936 Varies on Lower Grades from ¾d. per lb. up to 1932, to ¼d. per lb. in 1936	31st Jan., 1935	£ 87,268	£ 21,729	£ ..	£ ..	£ ..
Cotton Yarn manufactured in Australia	Varies according to count and year	(e) 30th June, 1932	2,287	..	..	..	..
Raw Cotton Bounty Act— Raw cotton produced in Australia and graded as prescribed	5½d. per lb. to 30th November, 1935, 4¾d. to 30th November, 1936, and 4½d. per lb. to 30th November, 1939, fluctuating according to variations in Liverpool price	30th Nov., 1939	..	96,752	77,089	50,643	95,044
Papua and New Guinea Bounties Act— Cocoa and Coffee Beans (a) produced in these Territories imported into Australia for home consumption	1½d. per lb.	31st Dec., 1937	(b) 844	1,430	1,166	1,285	1,774
Gold Bounty Act— Gold produced in Australia as prescribed	Varies according to production (d)	(e) 30th Sept. 1932	1,216	..	..	..	..
Wheat Bounty Act ..	..	..	(f)	(f)	(f)	(f)	(f)
Fruit Exported— Oranges ..	6d. per case .. 2s. per export case ..	(g) .. (g) ..	.. 5,227	.. 7,886	.. ..	.. ..	.. ..
Oranges, Lemons, Grape Fruit and Mandarins	Varies from 1s. to 2s. per case	(g) .. (h) ..	.. ..	.. ..	.. 7,431	.. ..	.. 9,807
Apples and Pears ..	4d. per bushel case .. 4½d. " " " " .. 2½ " " " " ..	(g) .. (g) .. (g) ..	 81,047	 104,045	.. ..	.. .. 54,643	.. ..
Prunes ..	¾d. per lb. .. ½d. " " ..	(g) .. (g) ..	 6,707	 2,200	.. ..	.. ..	.. ..
Total ..	.. ..	..	338,746	377,734	463,179	477,471	461,402

(a) Other goods are scheduled in the Act, see Note (b). (b) Including 17s. 2d., being amount of bounty paid on 172 lb. of spices in 1932-33; and £13 on 2,007 lb. of kapok in 1933-34. (c) All Bounties are subject to 20 per cent. reduction from 20th July, 1931, excepting those paid on gold, wine, wheat, fruit exported, and raw cotton produced subsequent to 31st December, 1937. (d) Rate of Bounty on gold produced for the nine months ending September, 1932, was 4.056s. per fine ounce. (e) Date Bounty ceased. (f) For details of other financial assistance see next table. (g) Acts passed in respect of each year.

2. **Other Financial Assistance.**—In addition to the payment of bounties mentioned in the preceding paragraph financial assistance has been granted by the Commonwealth Government for the relief of wheat-growers, fruit-growers and other primary producers. The amounts shown, however, do not include such items as the expenditure on cattle tick control, banana industry, tobacco investigation and apple and pear research, which indirectly benefits the industries concerned. The distribution as bounty, relief or subsidy has been made in the following manner:—

AMOUNTS PAID BY THE COMMONWEALTH GOVERNMENT TO ASSIST PRIMARY PRODUCERS.—AUSTRALIA.

Amounts paid to—	Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus. Cap. Ter.	Total.
		£	£	£	£	£	£	£	£
Wheat-growers as—									
Bounty (a) ..	1931-32	950,546	820,635	64,620	874,630	716,826	2,057	..	3,429,314
Relief ..	1932-33	570,902	442,421	40,744	507,138	436,145	2,342	308	2,000,000
Relief ..	1933-34	911,094	603,586	76,455	764,543	639,493 (d)	57,024	805	3,053,000
Bounty (a) ..	1934-35	531,593	285,000	45,717	300,687	296,652	2,543	222	1,462,414
Special Relief ..	1934-35	100,000	192,000	12,000	127,000	137,000	5,250	..	573,250
Relief ..	1934-35	590,000	400,000	42,740	503,545	434,527 (d)	33,906	226	2,004,944
Relief (b) ..	1935-36	565,327	441,948	42,835	432,146	392,850 (d)	40,403	360	1,915,869
Total ..	..	4,219,462	3,185,590	325,111	3,509,689	3,053,493	143,525	1,921	14,438,791
Fruit-growers as—									
Relief (c) ..	1933-34	8,225	36,321	478	5,258	10,918	63,800	..	125,000
Relief (c) ..	1934-35	12,538	22,299	2,103	13,116	14,713	70,231	..	135,000
Total ..	..	20,763	58,620	2,581	18,374	25,631	134,031	..	200,000
Primary Producers (other than wheat-growers)—									
Manure subsidy ..	1932-33	19,903	88,697	32,588	34,930	50,823	17,711	..	244,652
Manure subsidy ..	1934-35	23,000	95,000	21,000	46,000	52,000	13,000	..	250,000
Manure subsidy ..	1935-36	56,211	203,324	40,944	99,610	105,821	28,127	..	534,037
Manure subsidy ..	1936-37	40,500	130,000	25,000	59,000	57,500	15,000	..	327,000
Manure subsidy (b) ..	1937-38	32,500	100,000	22,000	50,000	45,000	12,000	..	261,500
Total ..	..	172,114	617,021	141,532	289,540	311,144	85,838	..	1,617,189
Grand Total ..	..	4,412,339	3,861,231	469,224	3,817,603	3,390,268	363,394	1,921	16,315,980

(a) Rate of Bounty 41d. per bushel in 1931-32 and 3d. per bushel in 1934-35. (b) Subject to revision.
 (c) Growers of apples, pears and mandarins. (d) Includes special grant to Tasmania.

The moneys granted for the assistance of wheat-growers in 1932-33 and 1933-34 were paid through the Governments of the States on an acreage basis. In 1934-35, in accordance with the recommendations of the Royal Commission on the wheat industry, assistance took the form of a bounty of 3d. per bushel, supplemented by a further relief payment of 3s. per acre. Further special relief was given to those farmers who were adversely affected by the weather conditions of the season 1934-35. Altogether, the amount paid during 1934-35 for the benefit of wheat-growers exceeded £4 million. For the year 1935-36 the amount paid by the Commonwealth Government as relief was £1,915,869. This also was paid through the State Governments. The relief granted to fruit-growers was paid to growers of apples, pears and mandarins. Assistance has been given to primary producers, other than wheat-growers, in the form of a manure subsidy; the rate was 15s. for each ton of artificial manure used in the production of primary produce, reduced in 1936-37 to 10s. per ton. Since 1932-33 more than £1,617,000 has been distributed in this manner. In addition to the assistance outlined above the Loan (Farmers' Debt Adjustment) Act 1935 made provision for grants, totalling £12 million to be made available to the States for the adjustment of farmers' debts. Of this amount

£10 million was allocated as follows:—New South Wales, £3,450,000; Victoria, £2,500,000; Queensland, £1,150,000; South Australia, £1,300,000; Western Australia, £1,300,000; and Tasmania, £300,000. The remaining £2 million is to be allocated in the same proportion, but is subject to review at a later date.

§ 19. Fertilizers.

1. **General.**—In the early days of settlement in Australia scientific cultivation was little understood. It was common, as in other new countries, for the land to be cropped continuously to a degree of exhaustion. The divergent character of the soils presented a difficulty in the proper use of fertilizers for different crops and the outstanding development of wheat-growing made a system of crop rotation impracticable. The importance of fallowing and the application of suitable fertilizers in adequate quantities is, however, now widely appreciated by farmers. The introduction of the modern seed-drill acting also as a fertilizer-distributor has greatly facilitated the use of artificial manures and much land formerly regarded as useless for cultivation has now been made productive.

2. **Fertilizers Acts.**—In order to protect the users of artificial manures, legislation has been passed in each of the States regulating the sale and prohibiting the adulteration of fertilizers. A list of these Acts and their main features will be found in Official Year Book No. 12 (page 378).

3. **Imports.**—The Australian production of prepared fertilizers is sufficient for local requirements. Imports consist chiefly of rock phosphate, which is used in making superphosphate, a valuable fertilizer for cereals. During 1936–37 the value of rock phosphate imported represented more than 67 per cent. of the total imports of fertilizers. Nauru and Gilbert and Ellice Islands Colony supplied the whole of the shipments. Sodium nitrate is obtained chiefly from Chile.

The imports of manures during the last five years are given in the following table. Although considerable quantities of manufactured superphosphate were imported up to the year 1914–15, imports during recent years were very small:—

FERTILIZERS.—IMPORTS, AUSTRALIA.

Fertilizer.		1932–33. (a)	1933–34. (a)	1934–35. (a)	1935–36. (a)	1936–37. (a)
Ammonium Sulphate	cwt.	314,798	305,972	229,200	491,208	573,979
„ „	£	106,926	127,015	104,809	216,671	240,089
Potash Salts	cwt.	145,209	124,871	149,701	209,379	209,476
„ „	£	98,767	66,290	59,841	75,120	115,925
Rock Phosphate	cwt.	9,569,006	7,480,378	8,201,296	10,488,165	13,259,884
„ „	£	731,454	593,971	610,092	735,962	893,252
Soda Nitrate	cwt.	64,388	59,534	83,548	110,273	134,311
„ „	£	40,604	30,899	39,431	49,580	71,885
Superphosphate	cwt.	..	..	51,360	40	20
„ „	£	..	..	3,449	9	4
Other	cwt.	7,787	120,382	7,712	116,549	38,425
„ „	£	3,808	20,313	3,431	13,598	6,075
Total	cwt.	10,101,188	8,091,137	8,722,817	11,415,614	14,270,095
	£	981,559	838,488	821,053	1,000,940	1,327,230

(a) Australian currency values.

4. **Exports.**—The subjoined table shows the exports of manures for the years 1932-33 to 1936-37. Practically all these fertilizers are manufactured locally, the quantities exported being consigned chiefly to the Pacific Islands, New Zealand and Japan :—

FERTILIZERS.—EXPORTS, AUSTRALIA.

Fertilizer.		1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Ammonium sulphate	cwt.	1,035	279	2,553	4,061	5,011
" "	£	423	121	1,074	1,569	974
Bonedust	cwt.	5,470	25	41	2,576	2,865
" "	£	770	10	17	1,396	1,597
Rock phosphate	cwt.	..	..	..	..	1
" "	£	..	..	..	..	7
Soda nitrate	cwt.	65	6	1	..	59
" "	£	49	7	1	..	59
Superphosphate	cwt.	294	633	31,116	36,454	41,254
" "	£	89	155	5,590	6,261	7,136
Other	cwt.	11,811	21,445	18,188	29,300	68,817
" "	£	1,664	8,493	1,703	11,665	34,104
Total	cwt.	18,675	22,388	51,899	72,391	118,007
	£	2,995	8,786	8,385	20,891	43,877

5. **Quantities Locally Used.**—Information regarding the area manured and the quantity used in each State during the year 1936-37 is given in the following table. Hitherto the area of pasture lands top-dressed and the quantity of manure used thereon were not available separately for Victoria and Western Australia, the particulars being included with the area of crops manured. The particulars are now available and the table has been extended to include these additional data for the year 1936-37. Details of the area manured with natural manure (stableyard, etc.) have been omitted; in 1936-37 the area and quantity involved amounted to 108,558 acres and 544,200 loads :—

AREA MANURED AND QUANTITY OF MANURE USED, 1936-37.

State or Territory.	Artificial Manure (Superphosphates, Bonedust, Nitrates, etc.)				Total Area Manured.	Total Artificial Manure Used.
	Area under Crop Manured.		Pasture Lands Top-dressed.			
	Acres.	Tons.	Acres.	Tons.	Acres.	Tons.
New South Wales	3,783,381	120,170	677,879	30,909	4,461,260	151,088
Victoria	3,657,432	157,865	2,911,181	148,981	6,568,613	306,846
Queensland (c)	162,734	40,393	(a)	(a)	(b) 162,734	(b) 40,393
South Australia	4,001,172	161,054	903,530	46,399	4,904,702	208,053
Western Australia	3,794,338	175,705	974,487	48,768	4,768,825	224,473
Tasmania	220,740	21,132	191,728	10,232	412,468	31,364
Northern Territory	20	4	..	..	20	4
Australian Capital Territory ..	3,713	169	2,612	135	6,325	304
Total	15,623,530	677,101	5,661,417	285,424	21,284,947	962,525

(a) Not available.

(b) Excluding Pasture Lands. Quantity considered to be negligible.

(c) Information not collected, figures for previous year shown.

Particulars of the quantity of artificial manure used in each of the States and Territories during the past ten years are included in the next table. These details include the quantity used in the top-dressing of pasture lands except where indicated by the

footnote. The omission of Queensland, however, does not detract from the value of the table as the area involved is considered to be negligible:—

QUANTITY OF ARTIFICIAL MANURE USED.—AUSTRALIA.

Year.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Northern Territory.	Australian Capital Territory.	Total. (b)
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1927-28 ..	113,765	240,715 (a)	21,855	168,576	169,552	24,427	..	33	738,923
1928-29 ..	126,946	257,498 (a)	36,644	184,994	201,022	23,500	14	116	830,734
1929-30 ..	120,076	269,967 (a)	22,925	196,746	231,128	34,810	..	137	874,789
1930-31 ..	132,619	274,420 (a)	28,783	205,110	236,146	24,870	..	131	902,079
1931-32 ..	70,374	163,234 (a)	31,255	148,707	178,509	22,050	..	92	614,221
1932-33 ..	89,955	199,557 (a)	35,505	157,995	199,337	24,235	..	128	706,712
1933-34 ..	98,313	217,251 (a)	42,517	158,989	203,848	25,844	..	120	746,882
1934-35 ..	101,885	211,657 (a)	44,270	157,189	196,741	25,824	..	135	737,770
1935-36 ..	123,472	251,897 (a)	40,393	174,593	202,325	27,104	2	166	819,952
1936-37 ..	151,088	306,846 (c)	40,393	208,053	224,473	31,364	4	304	962,525

(a) Exclusive of quantity used in top-dressing pasture lands.

(b) Incomplete. See Note (a).

As mentioned in § 18 the Commonwealth Government has encouraged the use of artificial manure by subsidizing primary producers, other than wheat-growers, at the rate of 15s. per ton up to 1936-37 when it was reduced to 10s. per ton. The expansion in the use of artificial manure since 1932-33, when the subsidy was introduced, is indicated in the table above.

6. **Local Production.**—Complete information regarding local production of fertilizers is not available. The number of firms engaged in the manufacture of chemical fertilizers in Australia for the year 1936-37 was 33, made up as follows:—New South Wales, 4; Victoria, 5; Queensland, 5; South Australia, 9; Western Australia, 5; and Tasmania, 6; The production of superphosphates in Australia during 1936-37 amounted to 1,090,225 tons, the largest producing States being Victoria, Western Australia and South Australia.

§ 20. Ensilage.

1. **Government Assistance in Production.**—The various State Governments devote a considerable amount of attention to the education of the farming community in regard to the value of ensilage. Monetary aid is afforded in the erection of silos, and expert advice is supplied in connexion with the design of the silos and the cutting and packing of the silage.

2. **Quantity Made.**—Information regarding the number of holdings on which ensilage was made and the quantity made during the seasons 1932-33 to 1936-37 is given in the following table.

ENSILAGE MADE.

State	1932-33.		1933-34.		1934-35.		1935-36.		1936-37.	
	Holdings.	Ensilage Made.	Holdings.	Ensilage Made.	Holdings.	Ensilage Made.	Holdings.	Ensilage Made.	Holdings.	Ensilage Made.
	(a) No.	Tons.	(a) No.	Tons.	(a) No.	Tons.	(a) No.	Tons.	(a) No.	Tons.
New South Wales ..	738	62,435	892	70,835	1,068	88,991	1,311	109,731	1,350	113,542
Victoria ..	197	11,642	214	11,900	369	22,145	326	22,346	549	32,902
Queensland ..	112	6,305	134	8,515	105	7,566	86	5,644	(b) 86	(b) 5,644
South Australia ..	132	9,470	92	5,098	109	6,794	124	9,160	118	9,270
Western Australia ..	469	21,655	433	19,974	423	16,996	332	14,896	306	13,197
Tasmania ..	37	1,336	58	2,301	52	2,473	20	1,341	17	610
Australia ..	1,685	112,843	1,823	118,623	2,126	144,965	2,208	163,118	2,426	175,174

(a) No. of holdings on which ensilage was made.

(b) 1935-36.

The drought of 1902-3 drew increased attention to the value of stocks of ensilage and during the four seasons ended 1909-10 there was an increase both in the number of holdings on which ensilage was made and in the quantity produced. The following five seasons, however, showed a falling off, but the reduction was due to the fact that stocks had not been drawn upon to any great extent during the previous seasons. The accumulated stocks proved of great value during the 1914 drought, though far below what would have been the case if more attention had been paid to production during the

previous years, when there was a surplus of green forage. The quantities made since that date have fluctuated considerably, but the output has increased during recent years, the production of 175,174 tons in 1936-37 being the greatest yet recorded in any year.

§ 21. Agricultural Colleges and Experimental Farms.

1. *General.*—In most of the States agricultural colleges and experimental farms have been established with a view to the promotion of more scientific methods in agriculture, stock-breeding and dairying. In the colleges, and on some of the farms, provision is made for the accommodation of pupils to whom both practical and theoretical instruction is given by experts in various branches of agriculture. Analyses of soils and fertilizers are made, manures are tested, and elementary veterinary science, etc., are taught, while general experimental work is carried on with cereal and other crops, not merely for the purpose of showing that it is practicable to produce certain crops in a given place, but to show also how it is possible to make farming pay in the locality. Opportunities are afforded for practice in general agricultural work, and instruction is given in the conservation of fodder; in cheese and butter making; in the management, breeding and preparation for the market of live stock; in the eradication of pests and weeds; and in carpentering, blacksmithing and other trades.

Expert lecturers visit the various agricultural and dairying centres, and there is a wide distribution of periodical agricultural gazettes and bulletins.

2. *Agricultural Colleges and Experimental Farms.*—In previous issues of this volume detailed information was given regarding agricultural colleges, experimental farms and agricultural education generally. See Year Book No. 11, pages 393-5, and a summary in respect of the year 1936-37 will be found in the Production Bulletin No. 31 issued by this Bureau.

3. *Agricultural and Stock Departments.*—A synopsis of the activities and operations of the Agricultural and Stock Departments of the several States on 30th June, 1920, will be found in Official Year Book No. 14, pages 1180 to 1191.

§ 22. Employment in Agriculture.

Information relating to the number of persons employed is furnished annually by landholders of one acre and upwards. The particulars furnished refer to the owner, occupier or manager, those members of his family and other employees who are permanently engaged throughout the year in the work of the farm. Casual labour, such as harvesters and fruitpickers, is excluded. In the collection of Statistics of this nature difficulty is experienced in correctly determining whether the duties of female employees are more domestic than rural and on that account it is considered advisable to leave females out of the table.

MALES EMPLOYED IN AGRICULTURE.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
1913-14 ..	61,525	51,932	33,362	34,111	18,210	11,789	210,929
1923-24 ..	48,170	49,740	38,186	31,532	22,153	12,905	202,692
1931-32 ..	39,382	40,994	45,496	30,587	25,576	12,736	194,771
1932-33 ..	42,556	41,845	40,203	30,457	26,079	13,199	200,339
1933-34 ..	42,084	38,514	40,097	30,329	24,925	13,945	195,894
1934-35 ..	42,135	37,294	47,242	30,177	23,775	13,353	193,970
1935-36 ..	42,204	35,926	45,878	30,096	22,585	12,731	189,420
1936-37 ..	43,648	35,575	(a) 45,878	30,273	22,317	12,138	189,829

(a) 1935-36.

Although the area under crop has expanded considerably during the past two decades there has been a decrease in the numbers employed in the agricultural branch of the rural industry owing to the increasing use of machinery in the cultivation of the soil and the harvesting of the crops. For a number of years prior to the depression the value of machinery employed in agricultural pursuits increased on the average by approximately £2 million per annum. After 1929-30 machinery values declined each year until 1935-36, when an increase of £1½ million was recorded, followed by a further rise of £700,000 in 1936-37.

CHAPTER XXI.

FARMYARD, DAIRY AND BEE PRODUCTS.

§ 1. Introductory.

1. **General.**—The introduction of cattle into Australia and the early history of the dairying industry are referred to in some detail in earlier issues of this work (see Official Year Book No. 6, p. 430). It may here be noted that the original stock has been crossed with specially imported stud cattle, while further judicious crossings of strains have resulted in an increased and improved milk supply. In Australia, dairy cattle thrive in the open throughout the year, local climatic conditions demanding no protection other than tree plantations for shelter, and rugging in the coldest weather. Indigenous and imported grasses furnish food during the greater part of the year, and winter fodder, when necessary, is given to the cattle in the fields. With the wider application of scientific methods in the treatment of animals and pasturages and in the processes of manufacture, coupled with herd testing and effective State supervision, the dairying industry has shown rapid expansion. An investigation into the problems of the dairying industry was instituted by the Commonwealth Government in 1929, and the first report, which relates to farm production, was completed in 1930. It was proposed to issue additional reports, but the investigation was discontinued. Investigation by the British Medical Research Council into the vitamin content of Australian, New Zealand and British butter respectively showed high and uniform results for the Australian product, the figures being on a par with those for the United Kingdom and other European countries. It was demonstrated also that Australian production and marketing methods do not adversely affect the vitamin content of the butter and that the loss during cold storage even for as long as two years is insignificant.

2. **Official Supervision of Industry.**—Dairy experts of the various State Agricultural Departments give instruction in approved methods of production, and inspect animals, buildings and marketable produce. A high standard of cleanliness, both of *personnel* and *matériel*, prevails. Financial assistance of a temporary nature is also given.

The export trade is regulated by the terms of the Commonwealth Commerce Act 1905 and regulations thereunder. The provisions of this Act are set out in detail in Official Year Book No. 6, pp. 431-2. It will be sufficient to state here that the true trade description, etc., must be marked on all produce intended for export, while official inspection ensures the maintenance of purity and quality. Upon request of the exporter the goods are given a certificate by the inspector.

3. **Stabilization Scheme.**—(i) *Voluntary Plan.* During the period from January, 1926 to May, 1934, a voluntary scheme known as the "Paterson Plan" was in operation, and had the effect of stabilizing the price of butter in Australia. The scheme provided for the payment of a levy on all butter produced in Australia sufficient to pay a bounty on export which ranged from 3d. to 4½d. per lb. The local price was raised by the amount of the bounty per unit while the return to the producer on all butter produced was increased by approximately the difference between the rate of bounty paid and the rate of levy charged.

The scheme, however, did not receive the full support of all manufacturers of butter and was superseded by a system of compulsory control of sales.

(ii) *Compulsory Plan.* Legislation known as the Dairy Produce Act was passed by the Commonwealth Parliament towards the end of 1933, and at the same time complementary legislation was passed by the States of New South Wales, Victoria, Queensland and Tasmania. As a result of a referendum among producers held in 1930, Tasmania withdrew from the plan and the State Act expired. In the Commonwealth Act power was given to regulate interstate trade whilst the State Acts were designed to regulate trade within the respective States. The authority set up by each State Act fixed the proportion of the State's production to be sold within the State, whilst the Commonwealth Act protected this allocation by regulating the movement of butter and cheese from one State to another and so ensured the removal from the Australian market of the surplus production.

The compulsory plan was invalidated by the decision of the Privy Council which declared in the *James (Dried Fruits) Case* that no power existed in the Commonwealth Constitution to regulate trade between the States: the marketing of dairy produce is now being continued on a voluntary basis.

4. *Mixed Farming.*—Dairying is not now, as formerly, wholly confined to agriculturists, since many graziers in a large way of business have lately given it their attention. In non-coastal regions it is generally carried on in conjunction with agriculture and sheep-raising, sufficient fodder being grown to carry the cattle through the winter months. Local wants are thus met, and in many places remote from the metropolis well-equipped factories have been established. The extent to which dairy cows and pigs are run in conjunction with the growing of wheat is referred to in Chapter XX., "Agriculture".

5. *Factory System.*—Cream separation and butter-making are often carried on together under the co-operative system. The creation of large central butter factories, supplied by numerous separating establishments or "creameries," has resulted in a considerable reduction in the cost of manufacture, since improved appliances such as refrigerators, etc., may be profitably worked at the larger establishments. The product is also of a more uniform quality and the number of farmers who prefer to convert the cream rather than send it to the factory is rapidly diminishing. Formerly the average quantity of milk used per pound of hand-made butter was about 3 gallons, but separator butter requires less than 2½ gallons.

6. *Butter and Cheese Factories.*—The factories in Australia for the manufacture of butter, cheese and condensed milk numbered 517 in 1936-37 as compared with 563 in 1927-28. The factories were distributed among the States as follows:—New South Wales, 130; Victoria, 175; Queensland, 102; South Australia, 44; Western Australia, 23; and Tasmania, 43. Fuller details regarding numbers of factories, output, etc., are given in Chapter XXIV.

7. *Ottawa Conference.*—The agreement reached at the Imperial Economic Conference at Ottawa in August, 1932, has materially assisted the dairying, bee and poultry industries. Under its terms free entry into the United Kingdom of eggs, poultry, butter, cheese and other milk products of Australian origin was allowed for the three years to 15th November, 1935, and thereafter pending further arrangements, while similar goods imported from foreign countries were subjected to customs duties. The rates imposed on the undermentioned items were as follows:—butter, 15s. per cwt.; cheese, 15 per cent. ad valorem; eggs in shell, 1s. 0d. to 1s. 9d. per great hundred; honey, 7s. per cwt.; milk powder, unsweetened, 6s. per cwt.; and condensed milk, 5s. and 6s. per cwt. The review of these preferences is reserved to the Government of the United Kingdom. The Agreement at the Ottawa Conference regarding the regulation of imports of bacon has been superseded by the introduction of a Bacon Marketing Scheme by the British Government. Under this scheme foreign supplies are adjusted according to the quantities furnished by British and Dominion producers. Details of imports into the United Kingdom are given in § 9 hereafter.

8. **Employment.**—The number of persons employed in the dairying industry is ascertained at the annual census of dairy production. The particulars collected are in respect of those persons who are permanently engaged in the actual work of the farm and include owner, occupier or manager, members of the family and other permanent employees. Casual hands are excluded: so are females whose duties are mainly domestic although they may assist in the outdoor work of the farm. In the earlier years, however, these females were in many cases included as farm workers.

EMPLOYMENT IN DAIRYING INDUSTRY.

Year and Sex.		N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
		No.	No.	No.	No.	No.	No.	No.
1916-17	Males ..	22,363	19,460	13,040	1,350	518	1,133	57,864
	Females ..	16,644	14,936	12,154	8,211	500	1,021	54,366
1926-27	Males ..	29,106	27,296	21,172	2,259	2,088	2,035	83,956
	Females ..	12,525	11,789	14,849	2,787	516	1,218	43,684
1932-33	Males ..	38,196	40,805	28,602	3,531	4,437	3,830	119,491
	Females ..	7,788	10,433	18,587	2,602	1,296	1,576	42,282
1933-34	Males ..	38,358	41,433	29,808	4,087	5,142	3,542	122,370
	Females ..	7,246	8,466	19,539	2,987	1,305	2,125	41,668
1934-35	Males ..	38,231	41,833	32,132	4,339	5,089	3,138	124,762
	Females ..	6,823	8,531	20,493	3,244	1,189	1,916	42,196
1935-36	Males ..	38,150	42,072	31,457	4,500	5,465	3,539	125,183
	Females ..	6,181	7,790	21,080	2,756	1,249	2,462	41,818
1936-37	Males ..	37,450	41,922	31,457	4,578	5,261	3,332	124,000
	Females ..	5,444	7,666	21,080	2,331	1,143	2,234	39,898

The employment of males shown in the above table gives some indication of the expansion of the dairying industry since 1916-17. This is further exemplified in the following table:—

DAIRYING INDUSTRY.—AUSTRALIA.

Year.	Number of Dairy Cows.	Production of Butter.	Value of Machinery employed on Dairy Farms.	Number of Males employed.
	No.	lb.	£	No.
1916-17	1,747,351	182,470,778	1,076,738	57,864
1926-27	2,434,745	253,250,173	2,526,000	83,956
1936-37	3,343,293	396,261,693	4,235,000	124,000

§ 2. Dairy Cattle and Dairy Products.

1. **Dairy Herds.**—The dairy herds of Australia were severely depleted during the drought of 1914-15, when the number was reduced to 1,084,393. Following that year there has been a steady expansion in the number of dairy cattle until in 1936 there were 3.3 million, the number having doubled in the course of two decades. In New South Wales, Victoria, South Australia and Tasmania the proportion of dairy cattle to all cattle is high. In Queensland, the Northern Territory and Western Australia there is a greatly preponderant number of other cattle, the main object in these areas being the production of beef. Dairying, however, has developed greatly in Southern Queensland since 1914-15, and the largest contribution to the Australian increase previously mentioned has been made by this State. The number of dairy cows shown in the following table includes heifers intended for milking and being within three months of calving. These heifers, however, are not collected in Tasmania, but in the other States they numbered 135,548.

CATTLE AND DAIRY CATTLE.—NUMBER.

State.		1932.	1933.	1934.	1935.	1936.
New South Wales	{ All Cattle ..	3,141,174	3,361,771	3,482,831	3,388,538	3,288,169
	{ Dairy Cows ..	1,068,605	1,097,842	1,112,861	1,091,562	1,069,888
Victoria	{ All Cattle ..	1,900,922	2,002,235	2,085,080	2,091,246	2,004,950
	{ Dairy Cows ..	887,996	910,187	951,849	987,676	967,755
Queensland	{ All Cattle ..	5,535,065	5,781,170	6,052,641	6,033,004	5,950,572
	{ Dairy Cows ..	792,943	877,409	939,254	955,746	914,815
South Australia	{ All Cattle ..	312,932	352,728	346,479	335,354	328,013
	{ Dairy Cows ..	149,172	163,875	170,250	173,706	169,761
Western Australia	{ All Cattle ..	857,473	885,669	911,940	882,761	792,508
	{ Dairy Cows ..	114,022	121,818	129,875	130,132	126,301
Tasmania	{ All Cattle ..	250,807	262,256	261,585	270,935	261,597
	{ Dairy Cows ..	87,854	94,375	91,223	97,350	93,657
Northern Territory	{ All Cattle ..	780,121	850,867	890,679	900,535	855,398
	{ Dairy Cows ..	(a)	(a)	(a)	(a)	(a)
Australian Capital Territory	{ All Cattle ..	4,643	6,790	8,133	10,186	9,856
	{ Dairy Cows ..	411	426	1,019	1,052	1,116
Australia	{ All Cattle ..	12,783,137	13,512,486	14,048,671	13,911,659	13,491,072
	{ Dairy Cows ..	3,101,003	3,265,932	3,396,331	3,437,224	3,343,293

(a) Not available.

2. **Milk.**—The annual quantity of milk produced per dairy cow varies greatly with breed, locality and season, reaching as high as 1,000 gallons, but averaging for the whole of Australia for all dairy cows and for all seasons prior to 1916 considerably under 300 gallons per annum. In recent years not only has there been an improvement in the quality of the cattle, but the application of scientific methods is being continually extended, and the 300 gallon average has been exceeded in each year since 1924, the yield of 392 gallons in 1931 constituting a record. The average annual yields per cow given in the following table for the last five years are based on the number of dairy cows which were in milk during any part of the year. The average given, is, therefore, below that for cows which were yielding during the greater part of the year. It should be noted that there are many difficulties attending the collection of the total quantity of milk obtained during any year. In addition, there is the further difficulty of ascertaining with any degree of accuracy the average number of cows in milk during the same period. The average yield per cow shown hereunder may be accepted as sufficiently reliable to show the general trend:—

MILK PRODUCTION.

Heading.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus. Cap. Ter.	Australia. (b)
1932-33—								
Dairy Cows (a) .. No.	992,343	831,767	751,938	1,227,710	100,755	84,827	460	2,884,800
Production 1,000 gals.	320,659	396,716	237,130	58,499	33,634	33,847	255	1,080,740
Aver. per cow .. gal.	323	477	315	477	334	399	554	375
1933-34—								
Dairy Cows (a) .. No.	1,028,874	878,972	700,537	1,39,482	112,005	91,115	400	3,050,385
Production 1,000 gals.	368,691	368,806	289,065	54,400	3,4904	29,160	277	1,145,303
Aver. per cow .. gal.	358	420	362	390	312	320	693	375
1934-35—								
Dairy Cows (a) .. No.	1,052,644	887,841	870,637	150,745	120,048	92,799	683	3,175,394
Production 1,000 gals.	357,450	403,030	302,173	53,355	36,758	31,840	207	1,181,005
Aver. per cow .. gal.	340	451	347	351	300	343	435	373
1935-36—								
Dairy Cows (a) .. No.	1,055,539	925,205	910,760	156,122	123,932	91,286	988	3,266,922
Production 1,000 gals.	345,446	390,742	261,266	59,042	38,138	33,737	272	1,137,543
Aver. per cow .. gal.	327	432	287	378	308	358	275	348
1936-37—								
Dairy Cows (a) .. No.	1,036,131	938,966	899,092	157,485	121,697	95,504	1,022	3,249,807
Production 1,000 gals.	317,617	423,305	200,315	63,699	36,771	31,156	365	1,079,228
Aver. per cow .. gal.	306	451	227	404	302	326	357	332

(a) Mean for the year.

(b) Exclusive of Northern Territory.

3. **Butter and Cheese.**—Although the quantity of dairy production is affected by the nature of the season, the large increase in the output of butter has been maintained in recent years despite the unfavourableness of some seasons. The average annual production rose from 260,000,000 lb. for the quinquennium 1923-1927 to 4,34,000,000 lb. for the latest five years. The largest production of butter in Australia was recorded

in 1934-35, when, as a result of a specially favourable season, 469,000,000 lb. were manufactured. In 1936-37 seasonal conditions reduced the yield to 396,300,000 lb. but the latest available figures indicate an increase to 431,000,000 lb. in 1937-38.

The total output of cheese is likewise dependent upon seasonal conditions. The production in 1936-37 was 44,700,000 lb., which exceeded the previous record in 1934-35 by nearly 5,000,000 lb.

The production of butter and cheese for the last five years was as follows :—

BUTTER AND CHEESE PRODUCTION.

State.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
BUTTER.					
	lb.	lb.	lb.	lb.	lb.
New South Wales	128,210,092	147,963,411	145,277,595	125,109,296	100,830,751
Victoria	144,564,666	134,942,177	147,051,179	148,132,507	154,769,391
Queensland	103,033,474	127,343,160	133,624,597	115,920,415	87,474,757
South Australia	21,310,006	19,755,685	18,513,229	20,064,305	20,892,369
Western Australia	11,469,661	11,911,912	13,308,003	12,008,745	12,360,924
Tasmania	11,071,631	9,003,800	10,089,043	10,613,358	10,918,278
Australian Capital Territory ..	16,273	16,283	15,086	13,849	15,223
Australia	419,074,803	450,936,428	469,078,732	433,722,475	396,261,693
CHEESE.					
	lb.	lb.	lb.	lb.	lb.
New South Wales	7,193,806	9,072,508	8,445,468	7,356,203	7,417,640
Victoria	9,183,018	8,163,233	10,095,139	10,073,804	13,351,121
Queensland	13,083,959	13,887,320	12,192,383	9,249,283	7,789,800
South Australia	6,093,170	5,316,971	6,649,661	8,103,663	12,164,819
Western Australia	138,051	285,461	643,571	865,482	1,012,139
Tasmania	1,235,302	1,551,000	1,948,963	2,150,281	2,994,227
Australia	36,933,306	38,476,493	39,975,185	38,598,716	44,728,839

4. **Condensed or Concentrated Milk.**—The manufacture of this product is of comparatively recent growth, the quantity of milk treated in 1901 being negligible, but production increased annually until in 1911 the output reached 23 million lb., nearly doubling that of the previous year. Thenceforward rapid progress was made, the greatest development taking place in Victoria. The output of condensed, concentrated and powdered milk in this State amounted in 1932-33 to 44,186,979 lb.; in 1933-34 to 41,899,267 lb.; in 1934-35 to 51,390,850 lb.; in 1935-36 to 38,598,154 lb. and in 1936-37 to 53,159,599 lb. Production in New South Wales during 1936-37 was 10,884,034 lb. No condensed or concentrated milk is made in Tasmania. Information regarding production in the remaining States is not available for publication, but the volume is not very large. Imports of milk into Australia consist almost entirely of malted or otherwise medicated milk.

5. **Oversea Trade in Butter, Cheese and Milk.**—The following tables give the imports, exports and net exports of butter, cheese and condensed milk. In each of the five years dealt with the exports of these commodities exceeded the imports :—

BUTTER, CHEESE, AND MILK, IMPORTS AND EXPORTS. — AUSTRALIA.

Australian Currency Values.

Products.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
IMPORTS.					
Butter	2,471	2,096	3,826	2,678	1,691
.. ..	199	113	309	167	133
Cheese	58,453	74,791	88,511	130,864	126,066
.. ..	5,283	5,949	7,052	10,225	9,900
Milk—concentrated and preserved	260,311	60,289	12,861	129,039	79,737
.. ..	9,408	2,342	942	3,876	2,515

BUTTER, CHEESE AND MILK, IMPORTS AND EXPORTS.—AUSTRALIA—*contd.*

Products.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
EXPORTS.					
Butter	lb. 244,299,732	262,518,906	212,646,177	171,309,396	197,345,647
.. .. .	£ 8,194,220	9,586,776	9,028,243	8,801,643	10,781,124
Cheese	lb. 9,314,529	16,829,780	12,972,027	13,924,572	27,245,038
.. .. .	£ 229,388	404,024	337,467	384,027	845,130
Milk—concentrated and preserved	lb. 10,773,041	16,593,664	16,961,023	22,169,680	24,717,435
.. .. .	£ 739,031	711,242	722,301	851,769	963,873
NET EXPORTS.					
Butter	lb. 244,207,261	262,516,810	212,642,351	174,300,718	197,343,956
.. .. .	£ 8,104,021	9,586,663	9,027,934	8,801,476	10,780,991
Cheese	lb. 9,256,076	16,754,989	12,884,116	13,793,708	27,119,572
.. .. .	£ 224,105	398,075	330,415	373,802	835,161
Milk—concentrated and preserved	lb. 19,512,730	16,533,375	16,948,162	22,040,641	24,037,698
.. .. .	£ 729,623	708,900	721,359	847,893	961,358

6. Local Consumption of Butter and Cheese.—The local production of butter and cheese, with the subtraction therefrom or the addition thereto of the net export or import for the corresponding period, represents approximately the quantity available for consumption in Australia. The figures for the five years ended 1936-37 are as follows:—

BUTTER AND CHEESE.—LOCAL CONSUMPTION.

Products.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37
Butter .. Total	lb. 193,347,828	206,639,167	206,561,922	221,080,124	221,964,075
.. .. Per head of population ..	29.27	31.05	30.82	32.75	32.62
Cheese .. Total	25,220,933	29,220,417	23,220,196	25,714,600	30,935,131
.. .. Per head of population ..	3.82	4.39	3.46	3.81	4.55

Consumption in 1936-37 averaged 32.62 lb. of butter and 4.55 lb. of cheese per head of population. The consumption of butter in the United Kingdom, Canada and New Zealand is given at 24.8 lb., 31.4 lb., and 40.0 lb. per head per annum respectively, while that of cheese amounted to 8.8 lb., 3.4 lb., and 5.5 lb. respectively.

§ 3. Pigs and Pig Products.

1. Pigs.—The number of pigs in Australia has varied considerably since the commencement of the present century. In 1904, the total amounted to 1,062,703, but after a period of fluctuations it declined to 695,968 in 1919. In 1921 the number increased to 960,000 and from that year it remained fairly constant up to 1928. Since that year more than 1,000,000 pigs have been recorded annually in Australia with the maximum figure of 1,203,004 in 1935. The distribution of pigs among the States and Territories in 1936 was—New South Wales, 390,780; Victoria, 318,673; Queensland, 290,855; South Australia, 85,048; Western Australia, 76,451; Tasmania, 40,021; Northern Territory, 470; Australian Capital Territory, 454. Total, 1,202,752. The figures for New South Wales, Victoria and the Australian Capital Territory represent the number as on the 31st March, 1937.

A more accurate index of the development of pig raising in Australia is provided in the following table which combines the number of slaughterings with the numbers returned each year from 1926. The table discloses substantial increases in the number of pigs raised over the period under review:—

NUMBER OF PIGS AND NUMBER SLAUGHTERED.—AUSTRALIA.

Year.	Number of Pigs.	Number Slaughtered.	Year	Number of Pigs	Number Slaughtered.
1927	878,207	1,302,402	1932	1,162,407	1,585,133
1928	910,181	1,360,388	1933	1,040,867	1,630,974
1929	1,018,324	1,337,001	1934	1,158,274	1,703,332
1930	1,071,079	1,409,718	1935	1,293,964	1,983,745
1931	1,167,845	1,510,635	1936	1,202,752	2,073,000

2. **Bacon and Ham.**—The highest production of bacon and ham was reached in 1935-36 with an output of 77,655,178 compared with 72,000,000 lb., the average for the last five years. The production in the several States in 1936-37 was as follows:—New South Wales, 22,069,860 lb.; Victoria, 17,571,792 lb.; Queensland, 20,229,728 lb.; South Australia, 7,573,620 lb.; Western Australia, 4,098,448 lb.; Tasmania, 2,132,464 lb.; Australian Capital Territory, 1,151 lb.; Total, 73,677,063 lb. Practically the whole of the bacon and ham produced is consumed locally. On the experience of the last five years the local consumption was about 70,000,000 lb. per year, or 10.5 lb. per unit of population. The bacon and ham exported from Australia is consigned chiefly to the Pacific Islands and the East.

3. **Pork Consumption.**—Particulars available regarding the consumption of pork (excluding bacon and ham) give an average for Australia of 8.95 lb. per head of population. Including bacon and ham, the average consumption amounted to 20.25 lb. compared with 17 lb. in New Zealand, 67.75 lb. in Canada, and 68 lb. in the United States of America.

4. **Oversea Trade in Pig Products.**—The oversea trade in pigs and pig products for the last five years is shown in the following table:—

PIG PRODUCTS.—OVERSEA TRADE, AUSTRALIA.

Australian Currency Values.

Particulars.		1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
PIGS.						
Imports	No.	12	11	39	10	56
"	£	291	257	2,124	413	3,079
Exports	No.	201	239	131	164	152
"	£	809	799	708	607	979
Net Exports	No.	189	228	92	154	96
"	£	518	542	-1,416	194	-2,100
BACON AND HAM.						
Imports	lb.	11,014	11,712	5,168	2,760	7,212
"	£	803	774	313	209	605
Exports	lb.	1,664,501	1,562,498	1,701,575	1,752,518	1,675,909
"	£	96,579	98,825	109,760	112,680	117,654
Net Exports	lb.	1,653,487	1,550,786	1,696,407	1,749,758	1,668,757
"	£	95,776	98,051	109,447	112,471	117,049
LARD.						
Imports	lb.	17,973	25,718	6,963	29,644	28,244
"	£	481	493	301	941	1,127
Exports	lb.	1,483,680	2,523,749	2,792,008	4,051,472	3,852,835
"	£	25,969	41,758	53,603	69,374	60,249
Net Exports	lb.	1,465,707	2,498,031	2,785,045	4,021,828	3,824,591
"	£	25,488	41,265	53,302	68,433	59,122
FROZEN PORK.						
Imports	lb.	..	150,032	85,942	7,746	34
"	£	..	6,793	3,513	210	3
Exports	lb.	8,663,864	15,636,132	23,577,743	26,816,453	33,959,412
"	£	210,793	401,306	587,410	687,043	934,575
Net Exports	lb.	8,663,864	15,486,100	23,491,801	26,808,707	33,950,378
"	£	210,793	394,603	583,897	686,833	934,572

NOTE.—The minus sign (—) signifies net imports.

Hitherto the output of pig products in Australia was usually sufficient to meet local requirements and provide a small surplus for export. During the five years ended 1937-38, however, overseas exports of frozen pork showed a remarkable increase averaging

22,100,000 lb. as compared with an average of 373,000 lb. for the five years ended 1930-31. The chief pig product consumed in the United Kingdom is bacon and ham, the imports of which during 1937 amounted to 7.6 million cwt., valued at £32,448,000, the supplies being obtained chiefly from Denmark.

The agreement at the Ottawa Conference regarding the regulation of supplies from foreign countries and the Dominions has been superseded by the institution of a Bacon Marketing Scheme by the British Government. The scheme aims at creating a regular market for home producers of bacon pigs and necessitates adjustment of foreign supplies to conform with British bacon factories' requirements after estimated home and Dominion production is provided for. The estimated share of Australian production in this market was allocated at 8 million lb. in 1935, 14½ million lb. in 1936, 22 million lb. in 1937 and 23 million lb. in 1938; figures which indicate a steady expansion of this trade in bacon pigs.

§ 4. Total Dairy Production.

The total dairy production for each State in 1936-37 is shown below:—

PRINCIPAL DAIRY PRODUCTION.—1936-37.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Aus. Cap. Ter.	Total.
MILK.								
Used for—	gallons.	gallons.	gallons.	gallons.	gallons.	gallons.	gallons.	gallons.
Butter ..	239,745,329	335,598,292	181,062,127	42,791,112	25,793,335	221,003,390	88,564	547,388,189
Cheese ..	7,594,353	13,417,617	7,585,364	11,415,987	998,997	3,065,026	..	44,074,344
Condensing and concen- trating	8,381,702	21,990,286	..	(a)	(a)	..	..	30,371,988
Other pur- poses ..	61,898,561	52,298,670	17,667,549	69,521,415	110,068,222	5,628,897	309,573	157,392,887
Total ..	317,616,945	423,304,865	206,315,040	63,698,514	36,770,524	31,156,283	365,237	1,079,227,408
BUTTER.								
In factories	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
On Dairy	103,974,903	140,897,946	84,401,372	17,131,365	10,641,749	8,148,662	..	374,195,997
and other	5,855,848	4,871,445	3,073,385	3,761,004	1,719,175	2,769,616	15,223	22,065,696
Farms ..								
Total ..	109,830,751	154,769,391	87,474,757	20,892,369	12,360,924	10,918,278	15,223	396,261,693
CHEESE.								
In Factories	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
On Dairy	7,145,170	13,040,709	7,771,926	12,164,717	1,009,909	2,834,177	..	43,966,608
and other	272,470	309,415	17,964	102	2,230	160,050	..	762,231
Farms ..								
Total ..	7,417,640	13,350,124	7,789,890	12,164,819	1,012,139	2,994,227	..	44,728,839

CONDENSED, CONCENTRATED, OR POWDERED MILK.

In Factories	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
	10,884,034	53,159,599	(a)	(a)	(a)	..	..	(b)69,145,567

(a) Figures not available for publication.
milk used for condensing and concentrating.

(b) Including States marked (a).

(c) Include

PRINCIPAL DAIRY PRODUCTION, 1936-37—continued.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Aus. Cap. Ter.	Total.
BACON AND HAM.								
In Factories On Dairy and other Farms ..	lb. 21,255,483	lb. 16,652,906	lb. 20,002,189	lb. 7,140,112	lb. 3,984,716	lb. 1,661,160	lb. ..	lb. 70,696,566
	814,377	918,886	227,539	433,508	113,732	471,304	1,151	2,980,497
Total ..	22,069,860	17,571,792	20,229,728	7,573,620	4,098,448	2,132,464	1,151	73,677,063

Particulars in regard to the production of other milk products are not available for all the States, but casein amounting to 4,502,031 lb., valued at £93,001, was manufactured in Victoria during 1936-37.

§ 5. Value of Dairy Production.

The values of dairy production on a gross, local and net basis are shown in the following table. The presentation of these values has become possible by the adoption in the several States of uniform principles in determining production and marketing costs. Production values for this and other industries are dealt with more fully in Chapter XXVIII. "Miscellaneous".

GROSS, LOCAL AND NET VALUE OF DAIRY PRODUCTION, 1936-1937.

State.	Gross Production valued at Principal Markets.	Marketing Costs.	Gross Production valued at Farm.	Farm Costs.			Net Value of Production. (a)
				Fodder fed to Farm Stock.	Value of Other Materials used in process of Production.		
	£	£	£	£	£	£	
New South Wales ..	12,302,000	1,457,000	10,845,000	1,708,000	9,000	9,128,000	
Victoria ..	13,018,154	521,071	12,497,083	1,618,897	100,000	10,778,186	
Queensland ..	6,321,000	214,000	6,107,000	1,000,000	150,000	4,957,000	
South Australia ..	2,154,957	76,059	2,078,898	412,924	78,178	1,587,796	
Western Australia ..	1,385,217	51,122	1,334,095	641,397	138,688	554,010	
Tasmania ..	916,100	39,630	876,470	308,400	26,000	542,070	
Total	1936-37	36,097,428	2,358,882	33,738,546	5,689,618	501,866	27,547,062
	1935-36	34,678,733	2,311,012	32,367,721	5,071,598	147,641	26,817,884
	1934-35	31,373,771	2,215,442	29,158,329	4,566,888	231,201	24,360,240
	1933-34	27,439,149	1,962,017	25,467,132	4,467,143	238,737	20,762,252

(a) No account has been taken of maintenance costs and depreciation.

§ 6. Poultry Farming.

1. General.—Poultry is kept in varying numbers by farmers, and production therefrom furnishes a considerable addition to the annual agricultural or dairying returns. For many years, however, poultry-keeping has been carried on as a separate industry, while it is also practised in conjunction with other rural industries. Special poultry farms have been instituted by the State Governments for scientific breeding, experts have been appointed to advise and instruct in the care and management of the various kinds of poultry, and exhibitions of leading breeds have been arranged, as well as egg-laying competitions. Co-operative egg-collecting circles have been formed in some districts; eggs are also delivered with milk and cream to the local butter factories, and thence forwarded to market.

2. **Number of Principal Kinds.**—The number of principal kinds of poultry is included in the annual census of live stock in all States except Victoria and Tasmania. The former State completed a census at 30th June, 1933, and the numbers at that date are shown in the table below. The details for Tasmania have been estimated. In 1913 a complete census was also taken and these data have been included for comparative purposes in the following table:—

POULTRY.—NUMBER OF PRINCIPAL KINDS—AUSTRALIA.

State.	Fowls.	Ducks.	Geese.	Turkeys.
1913.				
	No.	No.	No.	No.
New South Wales ..	3,351,629	261,075	23,948	216,274
Victoria ..	3,855,538	288,413	59,851	(a) 100,000
Queensland ..	841,630	35,337	7,457	27,192
South Australia ..	1,440,385	55,659	18,245	49,066
Western Australia ..	999,452	100,828	6,243	49,588
Tasmania (a) ..	350,000	35,000	12,000	8,000
Total ..	10,838,634	776,312	127,744	450,120

1936-37.				
	No.	No.	No.	No.
New South Wales ..	5,112,190	188,604	27,108	226,093
Victoria (b) ..	5,496,969	292,882	39,283	113,960
Queensland ..	1,170,000	38,000	4,000	10,000
South Australia ..	2,054,320	47,464	17,752	53,392
Western Australia ..	1,256,599	29,803	2,138	21,837
Tasmania (a) ..	450,000	35,000	10,000	10,000
Total ..	15,540,078	631,753	100,341	435,288

(a) Estimated.

(b) 30th June, 1933.

3. **Value of Poultry Products.**—Difficulty is experienced in obtaining complete figures for the production of poultry products. Arising from a series of Conferences of Australian Statisticians uniform procedure has been established for the valuation of these products. The following table sets out the values accruing to the poultry industry for Australia on a gross, local and net basis, and has been compiled from data actually collected or carefully estimated by the State Statistical Bureaux:—

GROSS, LOCAL AND NET VALUE OF POULTRY PRODUCTS, 1936-37.

State.	Gross Production valued at Principal Markets.	Marketing Costs.	Gross Production valued at Farm.	Feed and Other Costs.	Net Value of Production (a)	
	£	£	£	£	£	
New South Wales ..	4,029,000	325,000	3,704,000	1,518,000	2,186,000	
Victoria ..	4,071,691	305,377	3,766,314	1,404,749	2,361,565	
Queensland ..	635,000	103,000	532,000	210,000	322,000	
South Australia ..	815,834	94,531	721,303	476,949	244,354	
Western Australia ...	679,750	125,813	553,937	205,313	288,624	
Tasmania ..	422,640	31,700	390,940	52,400	338,540	
Total {	1936-37	10,653,915	985,421	9,668,494	3,987,408	5,681,086
	1935-36	9,575,755	856,936	8,718,819	3,050,257	5,668,562
	1934-35	8,955,815	857,091	8,098,724	2,837,065	5,261,659
	1933-34	8,542,275	801,683	7,740,592	2,561,232	5,179,360

(a) No account has been taken of maintenance costs and depreciation.

4. **Oversea Trade in Poultry Products.**—The Australian oversea export of poultry products is confined chiefly to eggs in shell and egg contents which are mainly consigned to the United Kingdom; New South Wales, Victoria and South Australia are the largest exporters, the total exports of eggs and egg contents in 1937-38 amounting to £703,639. The levying in accordance with the Ottawa Conference Agreement of a customs duty varying between 1s. and 1s. 9d. per 10 dozen by the Government of the United Kingdom on imported eggs of foreign origin has assisted Australia to obtain a larger share in this valuable market. Exports from Australia rose from less than 3 million dozen valued at £219,000 in 1928-29 to 21.7 million dozen valued at more than £1.1 million in 1934-35, but declined during the past three years to 11.3 million dozen in 1937-38. Exports of frozen poultry have declined quantitatively in the past two years, but values have been maintained. The oversea trade during the last five years was as follows:—

POULTRY PRODUCTS, TRADE.—AUSTRALIA.

Australian Currency Values.

Particulars.		1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
LIVE POULTRY.						
Imports	No.	77	137	154	2,780	39
"	£	239	401	605	1,256	81
Exports	No.	2,047	1,233	1,733	1,099	2,175
"	£	986	799	973	572	860
Net Exports ..	No.	1,970	1,096	1,579	—1,681	2,136
"	£	747	398	368	—684	779

FROZEN POULTRY.

Imports	lb.	13,290	3,129	11,671	11,589	1,349
"	£	919	147	467	616	150
Exports	pair	33,538	39,310	52,377	40,754	35,358
"	£	16,798	20,490	36,078	35,432	36,803
Net Exports ..	"	(a)	(a)	(a)	(a)	(a)
"	£	15,879	20,343	35,611	34,816	36,653

EGGS.

Imports	doz.	6,003	7,002	7,311	7,625	8,388
"	£	333	408	397	361	458
Exports	doz.	19,617,932	21,718,740	17,365,132	16,473,894	11,287,363
"	£	1,058,164	1,148,254	910,892	954,578	686,713
Net Exports ..	doz.	19,611,929	21,711,738	17,357,821	16,466,260	11,278,975
"	£	1,057,831	1,147,846	910,495	954,217	686,255

EGG-CONTENTS.

Imports	lb.	24,173	31,257	46,917	32,634	31,954
"	£	3,491	3,388	3,957	3,953	3,547
Exports	lb.	(a)	(a)	290,612	652,858	426,320
"	£	8,484	3,479	7,170	19,756	16,926
Net Exports ..	lb.	(a)	(a)	243,695	620,224	394,366
"	£	4,993	91	3,213	15,803	13,379

(a) Quantity not available.

§ 7. Bee Farming.

1. **General.**—Although practised to some extent as a separate industry, bee-farming is frequently carried on in conjunction with agriculture or dairying. The returns of honey from productive hives during 1936-37 gave an average of 51.3 lb. per hive, while the average quantity of wax was 0.74 lb. per hive.

2. **Production of Honey and Beeswax.**—The number of hives and the production of honey and beeswax during the year 1936-37 are given in the following table. As these details have been collected from holdings of one acre and upwards, any production from smaller areas is omitted and consequently the production to that extent is understated. In Victoria and South Australia, however, the compulsory registration of beekeepers enables the collection to cover all producers and the production for these States is considered to be complete.

BEE-HIVES, HONEY AND BEESWAX, 1936-37.

State.	Bee Hives.			Honey Produced.		Beeswax Produced.	
	Pro- ductive.	Unpro- ductive.	Total.	Quantity.	Gross Value.	Quantity.	Gross Value.
	No.	No.	No.	lb.	£	lb.	£
New South Wales ..	67,807	25,277	93,084	2,935,282	44,182	52,461	3,659
Victoria ..	65,379	34,239	99,618	3,439,262	53,738	40,612	2,707
Queensland ..	13,000	4,000	17,000	500,000	7,400	8,000	000
South Australia ..	64,001	18,810	82,811	3,273,441	30,689	41,060	2,474
Western Australia ..	16,515	1,175	17,690	1,601,161	18,482	26,424	1,321
Tasmania ..	5,372	2,443	7,815	154,931	2,740	2,171	137
Aus. Cap. Territory..	81	20	101	2,570	42	28	2
Australia ..	232,155	85,964	318,119	11,906,647	157,273	171,356	10,900

The table hereunder gives the production of honey and beeswax for the latest available five years :—

HONEY AND BEESWAX PRODUCTION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Aust. Cap. Ter.	Australia.
HONEY.								
	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
1932-33	2,021,242	3,543,103	531,075	4,791,520	438,209	127,800	2,976	12,350,027
1933-34	1,397,426	1,133,279	610,330	2,501,057	621,275	108,334	..	6,491,701
1934-35	5,539,977	2,779,791	761,209	4,155,450	811,449	67,717	10,120	14,125,413
1935-36	4,577,997	5,901,463	584,288	4,100,006	916,929	238,055	7,000	10,384,838
1936-37	2,935,282	3,439,262	500,000	3,273,441	1,601,161	154,931	2,570	11,906,647
BEESWAX.								
	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
1932-33	38,715	41,827	9,948	52,273	7,343	2,741	50	152,897
1933-34	27,069	15,102	8,727	31,891	8,643	2,038	..	93,470
1934-35	70,564	30,351	9,745	45,515	11,222	1,475	22	168,804
1935-36	62,886	61,849	8,056	49,570	13,952	3,410	26	197,355
1936-37	52,461	40,612	8,000	41,660	26,424	2,171	28	171,356

The production of honey and beeswax varies greatly from year to year according to the favourableness or otherwise of the seasons. During the last five years New South Wales produced on the average 3,474,000 lb. of honey and 50,300 lb. of beeswax; Victoria produced 3,359,000 lb. of honey and 37,900 lb. of wax; and South Australia 3,788,000 lb. of honey and 43,600 lb. of wax. These States together accounted for 86.6 per cent. of the total Australian production of honey and 84.0 per cent. of the beeswax. Next in order of importance were Western Australia, Queensland and Tasmania.

3. **Value of Production.**—The following table shows the gross, local and net values of production which have been compiled by the Statisticians of the several States on uniform methods. These data are based upon actual records but as previously explained it is known that the production in some States is understated. No production costs are taken into account and consequently the gross production valued at the farm and net values are identical.

GROSS, LOCAL AND NET VALUE OF BEE PRODUCTS, 1936-37.

State.		Gross Production Valued at Principal Markets.	Marketing Costs.	Gross Production Valued at Farm.	Net Value of Production.(a)
		£	£	£	£
New South Wales	..	48,000	5,000	43,000	43,000
Victoria	..	56,445	11,085	45,360	45,360
Queensland	..	8,000	3,000	5,000	5,000
South Australia	..	33,163	5,110	28,053	28,053
Western Australia	..	19,803	..	19,803	19,803
Tasmania	..	2,880	140	2,740	2,740
Total	1936-37	168,291	24,335	143,956	143,956
	1935-36	233,906	34,662	199,244	199,244
	1934-35	235,027	31,520	203,507	203,507
	1933-34	99,757	13,871	85,886	85,886

(a) No account has been taken of maintenance costs and depreciation.

4. **Oversea Trade in Bee Products.**—In normal years the production of honey exceeds Australian requirements, and a small quantity is available for export. The imports into the United Kingdom average 80,000 cwt. annually, of which Australia supplies approximately 1,200 cwt. At the Imperial Economic Conference at Ottawa in 1932 the representatives of the United Kingdom, on behalf of their Government, agreed to the imposition of an import duty of 7s. per cwt. on foreign honey. For the year 1937-38 the exports from Australia amounted to £21,100 compared with a total of £30,400 in the preceding year. The more general use of frame hives has reduced the production of wax, and as a result the quantity imported has exceeded that exported during each of the last five years.

For the year 1937-38, the imports of honey amounted to 6,687 lb. and the exports to 1,365,364 lb. The imports of beeswax amounted to 51,686 lb. in 1937-38 and the exports to 21,109 lb.

§ 8. Exports of Australian Farmyard, Dairy and Bee Products.

The quantities and values of Australian farmyard, dairy and bee products exported during each of the last five years are shown below :—

AUSTRALIAN FARMYARD, DAIRY AND BEE PRODUCTS.—EXPORTS.

Particulars.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
QUANTITY.					
Beeswax	lb. 1,451	957	395	48,656	21,109
Butter	244,994.73	262,571.06	212,644.17	274,389.39	197,348.64
Cheese	9,313,714	16,829,351	12,972,627	13,924,572	27,245,638
Eggs not in shell	(a)	(a)	290,612	652,858	426,320
Eggs	19,617,032	21,718,740	17,365,132	16,473,894	11,287,363
Feathers, Undressed	(a)	(a)	(a)	(a)	(a)
Honey	351,674	388,761	764,696	1,934,162	1,365,364
Lard	1,483,456	2,523,749	2,792,008	4,031,472	3,852,835
Meats—					
Bacon and Ham	1,664,501	1,562,498	1,701,575	1,752,518	1,675,969
Frozen Poultry	33,538	39,310	52,377	40,754	35,358
Frozen Pork	8,663,864	15,636,132	23,577,743	26,816,453	33,959,412
Milk, concentrated and preserved	19,771,958	16,553,864	16,961,023	22,169,680	24,717,435
Pigs, living	No. 201	239	131	164	152
Poultry, living	2,047	1,233	1,733	1,099	2,175
VALUE.					
	£	£	£	£	£
Beeswax	94.	76	28	2,934	1,322
Butter	8,194,220	9,586,776	9,832,733	8,801,643	10,781,124
Cheese	229,313	403,977	337,467	384,027	845,130
Eggs not in shell	8,484	3,369	7,170	19,756	16,926
Eggs	1,058,164	1,148,254	910,892	954,578	686,713
Feathers, undressed	694	1,491	2,257	3,110	1,192
Honey	6,458	6,828	12,840	30,380	21,081
Lard	25,963	41,758	53,603	69,374	60,249
Meats—					
Bacon and Ham	96,579	98,825	109,760	112,680	117,654
Frozen Poultry	10,798	20,490	36,078	35,432	36,803
Frozen Pork	210,793	401,306	587,410	687,043	934,575
Milk, concentrated and preserved	739,000	710,166	722,301	851,769	963,873
Pigs, living	809	899	708	607	979
Poultry, living	986	799	973	572	860
Total	10,588,355	12,425,014	12,614,220	11,953,005	14,468,381

(a) Quantity not available.

Butter figures most largely in the list of exports shown above, and is consigned mainly to the United Kingdom. During the latest year under review 184,170,000 lb. were shipped thereto, representing 93 per cent. of the total exports. Shipments to the principal Eastern countries were approximately 9,672,000 lb., or nearly 5 per cent. of the total.

§ 9. British Imports of Dairy Products.

1. Quantities and Values. —The following table gives the quantities and values of the principal dairy products imported into the United Kingdom during the years 1933 to 1937 :—

DAIRY PRODUCTS.—IMPORTS, UNITED KINGDOM.

Products.		1933.	1934.	1935.	1936.	1937.
Butter	cwt.	8,831,686	9,695,394	9,608,016	9,752,043	9,416,366
"	£	34,340,921	33,271,706	39,328,128	44,424,184	47,359,297
Cheese	cwt.	3,039,150	2,988,539	2,714,351	2,676,439	2,906,879
"	£	7,611,726	7,014,517	6,649,093	7,789,591	9,251,041
Milk, concentrated and preserved	cwt.	2,730,388	2,314,078	2,005,528	1,920,803	1,977,323
"	£	3,549,210	3,269,018	2,435,822	2,407,277	2,812,140
Bacon and Ham	cwt.	9,053,167	8,326,535	7,603,672	7,247,397	7,600,387
Pork (a)	cwt.	32,993,984	33,172,222	30,462,249	30,259,502	32,447,946
"	£	643,777	1,105,420	915,098	1,025,212	1,057,416
"	£	1,620,323	2,926,863	2,509,315	2,779,906	3,251,559

(a) Frozen; chilled and salted.

2. **Butter.**—(i) *Imports.* Australia has for many years supplied a large proportion of the butter imported into the United Kingdom. The quantity in 1937 amounted to 1,491,937 cwt., or 16 per cent. of the total importation. The Australian contribution was valued at £7,521,585 and was exceeded only by that received from New Zealand and Denmark. These three countries combined supplied 71 per cent. of the total imports compared with 68 per cent. in 1936 :—

BUTTER IMPORTS.—UNITED KINGDOM, 1937.

Country from which Imported.	Quantity.	Value.	Country from which Imported.	Quantity.	Value.
	cwt.	£		cwt.	£
New Zealand ..	2,950,963	15,352,026	Argentine Republic	129,652	505,757
Denmark ..	2,256,490	11,900,574	Estonia ..	159,882	781,341
Australia ..	1,491,937	7,521,585	Union of South		
Netherlands ..	716,614	3,292,116	Africa ..	69,126	312,553
Ireland (Eire) ..	319,957	1,311,304	British Possessions,		
Soviet Union ..	273,365	1,258,328	n.e.i. ..	78,601	446,353
Lithuania ..	204,540	975,576	Foreign Countries,		
Latvia ..	216,880	1,043,831	n.e.i. ..	80,602	383,067
Poland ..	105,395	485,566			
Finland ..	157,872	762,202			
Sweden ..	204,490	1,027,118	Total ..	9,416,366	47,359,297

(ii) *London Prices.* The average price of first quality Australian salted butter in London during the last ten years is shown in the following table :—

AUSTRALIAN BUTTER.—LONDON PRICES.

Year.	Average Price, first quality, per cwt.	Year.	Average Price, first quality, per cwt.
	s. d.		s. d.
1928	171 0	1933	87 0
1929	175 0	1934	75 6
1930	135 6	1935	94 6
1931	116 6	1936	104 6
1932	105 0	1937	115 6

3. **Cheese.**—The value of cheese imported into the United Kingdom in 1937 was £9,256,941, of which £5,392,128 was received from New Zealand, and £2,459,716 from Canada. Small experimental shipments from Australia were made in 1908 and following years, fair prices being realized. The value of the imports from Australia during 1937 amounted to £351,914.

4. **Bacon and Ham.**—Of a total import of bacon and ham valued in 1937 at £32,447,948, the United Kingdom received imports to the value of £15,360,125 from Denmark, £7,117,767 from Canada, £2,071,492 from the Netherlands, £1,840,093 from Poland and £1,688,847 from Eire. The import from Australia was small.

5. **Pork.**—The value of the United Kingdom imports of pork (frozen and chilled) was £3,251,559 in 1937. Imports from Australia were valued at £691,393, showing a further increase over the imports in previous years. The bulk of the supplies were received from New Zealand, namely £1,740,074.

6. **Other Products.**—The imports to the United Kingdom from Australia of beeswax, poultry, game, lard and honey in 1937 were unimportant, but frozen rabbits to the value of £154,920 and eggs in shell to the value of £721,530 representing 81 per cent. and 7 per cent. respectively of the total imports were imported during the year.

CHAPTER XXII.

FORESTRY.*

§ 1. General.

1. **Objects of Forestry.**—Scientific forestry aims at the preservation and development of existing forest areas by safeguarding them against fire, pests and destructive agencies generally, by expert supervision of the removal of timber, by judicious thinning and by reafforestation of denuded areas with suitable forest growths of local or exotic origin. It provides also for the continuance of this indispensable form of national wealth by the afforestation of available bare lands proved capable of producing various timbers. Only small areas of virgin forests still remain in Australia, as extensive inroads have been made by timber-getters, by agriculturalists and by pastoralists—who have destroyed large areas by “ring-barking”—and it is not unlikely that climatological changes have resulted therefrom. It is recognized that beneficial consequences follow on the planting of tress on denuded lands, or along eroding coasts, and that a forest covering tends to regulate to the best advantage the effects of rainfall. The existing virgin forests consist of hardwood jungle, or brush, with very little softwood, and the need for extensive softwood planting is urgent.

Efficient forestry is of particular interest in connexion with the Murray River Basin, where a large expenditure from the public funds has been incurred in the provision of locks and weirs and in the formation of irrigation settlements in the lower course of the river. The stability of flow of this river in so far as it can be assured by forest plantation may be regarded as of national importance.

Successful planting of exotics in various parts of Australia has demonstrated that both climate and soil are suitable for the cultivation of a number of highly serviceable softwoods.

2. **Extent of Forests.**—(i) *Australia.* The bulk of the present local timber supply comes from the thickly forested areas in the 30-inch and over rainfall belt south of the tropics, and the 70-inch and over rainfall belt within the tropics. The total forest area included in the divisions specified is comparatively small, and is confined to the following regions:—(a) The coastal belt in the extreme south-west of Western Australia, from a little north of Perth to Albany; (b) the Otway country in the south of Victoria, and the whole of the south-eastern portion of that State; (c) the mountain forests of Victoria and New South Wales; (d) the coastal districts of New South Wales and Queensland; (e) the greater portion of Tasmania; (f) the forests on the Murray River near Echuca; and (g) the cypress pine belt from the Murray northward to Queensland and westward of the coastal belt.

Over 90 per cent. of the timber trees of Australia consists of hardwoods belonging to the genus *Eucalyptus* (Gum Trees). Including the mallees over 400 species are now recognized, but the chief commercial varieties are confined to about 50 species.

In addition to the hardwood forests and the cypress pine belt the coastal strip in Queensland and northern New South Wales provides “rain” or “brush” forests. These tropical forests furnish the serviceable hoop pine and furniture timbers such as black bean, Queensland walnut and maple, silkwood, etc.

* A specially contributed article dealing with Forestry in Australia appeared as part of this Chapter in Official Year Book No. 19 (*vide pp. 701 to 712 therein*).

The drier wooded area of the continent contains a large number of xerophilous trees and woody shrubs which thrive in regions receiving less than 10 inches of rain per annum. Country devoid of tree growth is rare. Unsuitable soil conditions such as basalt formations, clay pans, rock exposures or sand dunes are as a rule more responsible for treeless areas than lack of rainfall. The 300-mile stretch of the Nullarbor Plain is a treeless area where the non-retentive limestone foundation accentuates the effects of a low rainfall. While, however, the major portion of Australia carries trees, and may be said to be wooded (the term "desert" applying to relatively small areas only), dense forest is confined to a very narrow fringe. The savannah forests of the interior yield minor products such as sandalwood and tan barks, but do not produce timber. These open, park-like formations carry scattered trees of low habit only. Practically the whole of Papua and New Guinea carry or has carried dense forests, the exceptions being certain small dry belts where the rainfall is less than 70 inches. Norfolk Island was originally covered with a thick jungle.

Special articles relating to Australian Eucalyptus timbers and the chemical products of Eucalypts will be found in Official Year Book No. 10, pp. 85-98.

Scientific surveys of the forests of the various States have not yet been completed and there are, in consequence, conflicting reports regarding the total forest area of Australia. At the Interstate Conference on Forestry, held at Hobart in April, 1920, it was resolved that a forest area of 24,500,000 acres was necessary to provide for the future requirements of Australia. This area was subsequently adopted at the Premiers' Conference held in May of the same year. Expert foresters, however, consider that approximately 19,500,000 acres represent the possible limit for permanent reservation in Australia. The distribution of the latter area throughout the States was estimated as follows :—

ESTIMATED FOREST AREA.

State.				Total Forest Area. Acres.	Percentage on Total Area.
New South Wales	..	..	..	4,000,000	2.02
Victoria	..	..	..	5,500,000	9.78
Queensland	..	..	..	6,000,000	1.40
South Australia	..	..	..	500,000	0.21
Western Australia	..	..	..	3,000,000	0.48
Tasmania	..	..	..	500,000	2.98
Australia	..	..	..	19,500,000	1.02

(ii) *Comparison with Other Countries.* The table hereunder shows the absolute and relative forest areas of Australia and other countries, and the relative areas owned by the State, by Public Institutions and by private individuals, in so far as the details are available. The term "Public Institutions" appears to include local governmental and ecclesiastical authorities, while those held by public companies, co-operative societies, etc., are included with private individuals.

The figures are based on information supplied to the International Institute of Agriculture and are the latest available. Comparisons of the returns for different countries are, however, subject to the qualification that the significance of the term "forest" is not identical in all cases. In older countries, and chiefly in Europe, scientific forestry has been practised for centuries, whereas in newer lands, such as Australia, Canada, etc., it is of comparatively recent application. Moreover, considerable areas included as forests in the newer countries contain indigenous growth of little or no commercial value, and effective comparisons cannot, therefore, be made with countries where efficient forestry has been practised for many years.

FORESTS.—AREA AND OWNERSHIP, VARIOUS COUNTRIES.

Country.	Forest Area.	Per cent. of Total Area.	Percentage Owned by—		
			State.	Public Institutions other than State.	Privately.
	sq. miles.	Per cent.	Per cent.	Per cent.	Per cent.
Soviet Union	3,667,530	44.7	100.0	..	..
Canada	1,151,402	32.8	(a)	(a)	(a)
United States of America ..	733,539	24.7	(a)	(a)	(a)
India	307,928	27.5	(a)	(a)	(a)
Nigeria	234,690	63.8	(a)	(a)	(a)
Finland	97,540	73.5	39.8	1.7	58.5
Sweden	89,500	56.5	20.1	3.8	76.1
Japan	87,678	59.5	(a)	(a)	(a)
Germany	49,691	27.5	32.6	17.2	50.2
France	40,768	19.2	13.9	23.6	62.5
Poland	32,246	21.5	36.1	..	63.9
Australia (b)	30,469	1.0	(a)	(a)	(a)
Yugoslavia	29,504	30.6	37.5	28.9	33.6
Norway	29,454	24.7	13.0	6.4	80.6
Turkey	28,703	9.7	94.4	..	5.6
Rumania	27,544	24.2	30.5	18.3	51.2
Italy	22,425	18.7	3.0	34.0	63.0
New Zealand	20,778	20.2	(a)	(a)	(a)
Spain	19,305	10.0	(a)	(a)	(a)
Czechoslovakia	17,925	33.0	20.4	15.6	64.0
Union of South Africa ..	15,958	3.4	(a)	(a)	(a)
Algeria	12,257	10.7	(a)	(a)	(a)
Austria	12,116	37.4	15.7	12.6	71.7
Dutch East Indies ..	11,737	23.1	(a)	(a)	(a)
Bulgaria	11,469	28.8	23.0	58.8	18.2
Greece	9,291	18.5	69.3	10.3	20.4
Latvia	6,406	25.2	83.6	1.8	14.6
Great Britain	4,745	5.4	10.4	1.3	88.3

(a) Not available.

(b) Estimate of forest area possible for permanent reservation.

3. **Requisite Proportion of Forest Area.**—It is generally held that when the forest area in any country falls below 0.86 acres per head of population, that country will be obliged to import timber. Australia possesses 3.19 acres of forest per head of population and normally the excess of imports of timber over exports amounts to approximately 28,000,000 cubic feet. There are two reasons for the excess. In the first place, the area of 10,500,000 acres given as the wooded area comprises all forest lands, reproductive or otherwise. The bulk of this area consists of cut-over forests swept by fire at frequent intervals, and the area of really productive forests has not been ascertained. Secondly, Australia does not possess a sufficient supply of softwoods, and must, therefore—with the exception of a small quantity produced in Queensland and New South Wales—import the bulk of its requirements from overseas. Provided that the area of 10,500,000 acres considered possible of permanent reservation by foresters was yielding under silvicultural treatment its maximum of hard and soft woods the timber supply of Australia would be sufficient for a population of 22½ millions.

§ 2. Forestry Activities of the Commonwealth Government.

Forestry was not included amongst the matters transferred from the States to the control of the Commonwealth, and federal supervision, therefore, is restricted to the forests in the Commonwealth Territories. These territories (including Papua, New Guinea and Norfolk Island) cover a large area, and, with the exception of the Northern

Territory, are capable of sound forestry development. It is only within comparatively recent years, however, that any attempt has been made to take stock of the forestry position. The Commonwealth Forestry Bureau was instituted in 1925 to initiate silvicultural and other forest research work and to take charge of the education and training of the professional staffs required by the Commonwealth and the State services. The Bureau received statutory powers under an Act passed in 1930. In the meantime, the Australian Forestry School was established in 1926, and not only was the training of the State forest officers begun, but a nucleus of qualified officers was sent abroad to undergo special courses of instruction with the object of staffing the research side of the Bureau. The financial situation since 1930 has delayed progress on the research side, and the educational work of the Australian Forestry School is at present the Bureau's main activity.

The forest resources of the Territories of Papua, New Guinea, Norfolk Island and the Australian Capital have been investigated, and reports in connexion therewith have been published. In the case of the Australian Capital area an active forest policy has been inaugurated.

The investigation of the dead product of the forests is entrusted to the Council for Scientific and Industrial Research, which has established a Forest Products Division. Research work is being carried out by this institution in regard to various matters, e.g., paper pulp, seasoning, preservation, tan barks, the chemistry of woods, and the utilization of forest products generally, including the substitution of local for imported woods for such purposes as butter boxes and fruit cases.

§ 3. State Forestry Departments.

1. **Functions.**—With the exception of Queensland, the powers and functions of State forest authorities are laid down under Forestry Acts and Regulations. In each State there is a Department or Commission specially charged with forestry work. The functions of these administrations are as follows:—(a) The securing of an adequate reservation of forest lands; (b) the introduction of proper measures for scientific control and management of forest lands; (c) the protection of forests; (d) the conversion, marketing and economic utilization of forest produce; and (e) the establishment and maintenance of coniferous forests to remedy existing deficiency in softwoods.

Annual reports are issued by each State forest authority.

In Victoria a forestry school has been established at which recruits are trained for the forestry service of the State.

2. **Forest Reservations.**—At the Interstate Forestry Conference held in Hobart in 1920, the State forestry authorities agreed in regard to the necessity of reserving an area of 24,500,000 acres of indigenous forest lands in order to meet the future requirements of Australia but, as previously mentioned, it is the considered opinion of expert foresters that 19.5 million acres only are possible of permanent reservation. This area was distributed among the States as set out in Section 1, 2 *ante*.

Having been endorsed by the Premiers' Conference held later in the same year, this area was adopted as the Australian forest requirement towards the permanent reservation of which the authorities are now aiming. The progress made in the various States to the end of June, 1937, is set out in the following table:—

AREA OF FOREST RESERVATIONS, 30th JUNE, 1937.

Particulars.	New South Wales.	Victoria.	Queens- land.	South Australia.	Western Australia.	Tasmania.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Dedicated State forests ..	5,131,926	4,083,587	2,790,196	(a)262,015	3,172,029	1,468,535	16,908,288
Timber and fuel reserves ..	1,429,809	730,545	3,384,196	..	2,170,247	950,000	8,664,797
Total ..	6,561,735	4,814,132	6,174,392	262,015	5,342,276	2,418,535	25,573,085

(a) Includes Timber and Fuel Reserves.

In addition to the work of permanently reserving their respective areas the State foresters are endeavouring to survey all timbered lands with a view to the cutting out of all those unsuitable for forestry. Considerable areas have been revoked in certain States, while dedications of new areas have resulted in gains to the permanent forest estate.

The area of State forests reserved in perpetuity amounted in June, 1937, to 16,908,288 acres, or 87 per cent. of the area considered possible of permanent reservation in Australia. Of this area a considerable proportion consists of inaccessible mountainous country and cut-over lands, while the Australian area recommended refers to merchantable forest only. The foresters of Australia are, therefore, faced with a difficult task in improving and preserving the existing forests, and in securing the reservation of further suitable forest country to ensure a permanent supply.

The Forestry Departments also control 8,664,797 acres of temporary timber and fuel reserves, but, while these areas contain some land of high value for forestry purposes, the greater part does not justify permanent reservation.

3. **Sylvicultural Nurseries and Plantations.**—Recognition of the necessity for providing by systematic sylviculture for the future softwood timber needs has led to the creation in all of the States of a number of nurseries and plantations. A brief statement showing the locality of these establishments and the nature of their activities will be found in the previous issues of the Official Year Book. (See Official Year Book No. 6, pp. 451-3.) Details regarding forest plantations and the number of persons employed are given hereunder :—

FORESTRY.—AREAS AND EMPLOYMENT, 1936-37.

Particulars.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total.
Total area of indigenous forest improved or regenerated .. acres	1,209,341	901,379	225,013	9,906	414,307	..	2,759,940
Total area of Effective Plantations—							
Softwoods .. acres	43,206	49,952	15,119	88,486	10,898	1,150	208,811
Hardwoods .. acres	..	2,500	1,894	5,318	..	..	9,712
Number of persons employed in Forestry Departments—							
Office Staff .. No.	83	51	100	29	38	18	310
Field Staff .. No.	111	143	682	290	(a) 655	33	1,914

(a) Including casual hands.

4. **Revenue and Expenditure.**—The revenue and expenditure of State Forestry Departments from 1932-33 to 1936-37 are given below :—

STATE FORESTRY DEPARTMENTS.—REVENUE AND EXPENDITURE.

State.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
REVENUE.					
	£	£	£	£	£
New South Wales ..	139,211	166,014	188,471	87,674	206,770
Victoria ..	126,058	179,150	158,608	176,626	199,360
Queensland ..	235,440	293,991	608,935	600,455	669,457
South Australia ..	62,766	82,888	95,730	115,513	114,038
Western Australia ..	65,875	89,895	119,232	143,158	164,888
Tasmania ..	13,229	17,445	23,066	26,904	30,693
Total ..	642,579	829,383	1,194,042	1,210,330	1,385,806

STATE FORESTRY DEPARTMENTS. REVENUE AND EXPENDITURE—*contd.*

State.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
EXPENDITURE.					
	£	£	£	£	£
New South Wales ..	(a) 132,814	(a) 213,067	(a) 349,119	(a) 179,234	84,857
Victoria ..	130,077	(a) 250,195	105,431	190,279	(a) 610,604
Queensland ..	(a) 175,073	(a) 232,930	420,178	490,928	495,740
South Australia ..	183,866	158,788	170,426	175,913	174,973
Western Australia ..	(a) 158,748	(a) 171,798	(a) 190,348	(a) 235,186	(b) 196,698
Tasmania ..	6,777	8,978	11,118	15,674	20,234
Total ..	793,955	1,041,756	1,306,620	1,299,214	1,583,106

(a) Including expenditure from Unemployment Relief Funds as follows:—1932-33—New South Wales, £25,109; Queensland, £8,315; Western Australia, £134,097; 1933-34—New South Wales, £101,570; Victoria, £11,301; Queensland, £27; Western Australia, £111,520; 1934-35—New South Wales, £236,735; Western Australia, £157,927; 1935-36—New South Wales, £117,704; Western Australia, £163,849; 1936-37—Victoria, £335,804. (b) Including £122,011 from General Loan and Trust Funds.

§ 4. The Australian Forestry School.

The Australian Forestry School situated at Canberra in the Australian Capital Territory was established in 1926 by the Commonwealth Government to meet the demand of the States for an institution which would give a professional training at least equal to that afforded by the recognized forestry schools abroad.

Under existing arrangements the head of the State forestry service may nominate candidates for enrolment at the school. According to the system in vogue in each State, the nomination may be made either at school leaving age or after the candidate has successfully completed the specified university course. In the first case, the youth is helped throughout his university career and is given employment in practical work during the long vacations to test his suitability as a forestry officer; in the second case he is chosen later, and the practical tests are not made until the long vacation immediately preceding his entry to the school. The possession of a nomination by a State government service is not, however, essential for enrolment, since any candidate possessing the necessary qualifications will be accepted for the diploma course, and in special cases applicants desirous of studying a particular branch of forestry will be required to follow certain lectures only. Refresher or post graduate courses are arranged to meet the needs of senior foresters.

A candidate for enrolment in the diploma course must possess—(a) a degree of a university, or (b) a certificate that he has completed the special two years' preliminary course at a university.

The qualifications for enrolment may be waived to assist an applicant of exceptional ability with a record of long service in a State Forestry Department, who has been specially recommended by the head of that service. Such applicants must show proof of education equal to that required for a school leaving certificate.

The course of instruction extends over three years, the first two of which are spent at the school, and the third in one of the forestry services of Australia.

The Commonwealth diploma of forestry is awarded to students on the following conditions:—(a) Successful completion of theoretical course; (b) Satisfactory field work during the course; and (c) One year's satisfactory practical forestry work following the school course.

Students who have passed the approved two-year preliminary science course at the Universities of Adelaide, Melbourne, Western Australia or Queensland, and two years of Diploma course at the School, may be granted the degree B.Sc.F. by their Universities, subject to certain conditions laid down, particulars of which may be obtained from the Registrar of the University concerned.

§ 5. Forest Congresses.

References to the various Forestry Conferences held in Australia and elsewhere will be found in Official Year Book No. 22, p. 743, but owing to limitations of space, the information cannot be repeated herein. The Third British Empire Forestry Conference was held in Australia and New Zealand in 1928, and the Fourth in South Africa in 1935. Publications issued in connexion with these Conferences are available on application to the various State and Commonwealth forestry authorities.

§ 6. Forestry Production.

1. **Timber.**—Particulars regarding the production of sawn timber from forest sawmills in each State for the year 1936-37 are shown in the following table:—

SAWMILL OUTPUT OF NATIVE TIMBER, 1936-37.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.(a)	Tas.	Total.
LOGS AND BALKS TREATED.							
Hardwood—Quantity	1,000 sup. ft.						
Value ..	£						
Softwood—Quantity	1,000 sup. ft.						
Value ..	£						
Total—Quantity	1,000 sup. ft.						
Value ..	£						
ROUGH SAWN TIMBER PRODUCED.							
Hardwood—Quantity	1,000 sup. ft.						
Value ..	£						
Softwood—Quantity	1,000 sup. ft.						
Value ..	£						
Total—Quantity	1,000 sup. ft.						
Value ..	£						

The next table gives the sawmill output of native timber in each State for 1923-24, 1928-29 and for the last three years:—

SAWMILL OUTPUT OF NATIVE TIMBER.

State.	1923-24.	1928-29.	1934-35.	1935-36.	1936-37.
	1,000 sup. feet.	1,000 sup. feet.	1,000 sup. feet.	1,000 sup. feet.	1,000 sup. feet.
New South Wales ..	107,493	130,051	122,604	133,342	145,929
Victoria ..	134,639	79,018	97,110	105,935	122,908
Queensland ..	141,672	100,802	110,818	125,269	160,745
South Australia ..	1,350	3,219	11,710	12,858	13,039
Western Australia ..	161,749	145,043	87,237	109,374	130,987
Tasmania ..	63,120	40,195	66,809	76,422	81,328
Total ..	670,023	516,388	502,288	563,200	654,936

In addition to the sawn timber shown in the table, a large amount of other timbers e.g., sleepers, piles, poles, fencing material, timber used in mining, and fuel, is obtained from forest and other lands. Complete information in regard to the volume of this output is, however, not available. In Western Australia, particulars are obtained of the quantities of timber hewn by contractors for the Railway Department, mines, etc., as

well as of the quantities produced by other agencies outside forest sawmills, but the figures have not been included in the preceding two tables. The quantities so produced in the last five years were as follows: 1932-33, 12,441,946 sup. feet; 1933-34, 31,335,186 sup. ft.; 1934-35, 43,259,941 sup. ft.; 1935-36, 45,614,500 sup. feet; and 1936-37, 44,771,668 sup. feet. The annual reports of the Forest Departments in the States contain particulars concerning the output of timber from areas under departmental control, but owing to lack of uniformity in measurements accurate determination of total production cannot be made. Efforts, however, are being made to obtain more comparable information. Moreover, there is a fair quantity of hewn timber produced from privately owned land, but information regarding output is not available.

2. **Other Forest Products.**—(i) *Eucalyptus Oil*. Oil may be distilled from the foliage of all varieties of eucalyptus, and several of them furnish a product widely known for its commercial and medicinal uses. Complete information regarding Australian production and consumption of eucalyptus oil is not available, but large quantities are manufactured particularly in Victoria. Oversea exports amounted in 1932-33 to £40,075; in 1933-34 to £41,010; in 1934-35 to £50,699; in 1935-36 to £53,797; and in 1936-37 to £82,457, the bulk of the product being shipped from Victoria to the United Kingdom, the United States and Germany. Large quantities of the crude oil are used locally in flotation processes in connexion with the recovery of gold and other minerals.

(ii) *Sandalwood and Sandalwood Oil*. The distillation of oil from Western Australian sandalwood has been characterized by improvement both in quality and in quantity within recent years. It is claimed that the Western Australian oil is at least as valuable medicinally as the well-known Mysore oil, besides having an extensive use in the manufacture of perfumes. Exports of essential oils from Western Australia amounted in 1932-33 to £26,331; in 1933-34 to £26,720; in 1934-35 to £35,363; in 1935-36 to £27,526; and in 1936-37 to £38,185. The bulk of the product consisted of sandalwood oil which was shipped principally to the United Kingdom, Eastern States of Australia and Germany. In addition to its distillation, quantities of sandalwood are gathered for export each year. Western Australia is the chief source of supply, followed by South Australia, while Queensland also produces a small quantity. In 1936-37, 3,555 tons valued at £106,448 were exported, the whole of which was shipped to the East; Hong Kong 2,120 tons and China 1,154 tons were the principal countries of destination. A table giving these details is included in § 8 hereinafter.

(iii) *Grass Tree or Yacca Gum*. South Australia is the chief State producing this gum which is used in the preparation of varnishes and lacquers. Quantities are also obtained in New South Wales and Western Australia but these are small. The production in South Australia during 1936-37 amounted to 3,639 tons, whilst the exports from Australia amounted to 2,810 tons valued at £16,655 during the same period.

(iv) *Tan Barks*. The forests of Australia are capable of yielding a wealth of tanning materials; many species of eucalyptus and other genera contain varying proportions of tannin, chiefly in the bark, but also in the wood and twigs. Although many of these species contain higher percentages of tannin than is found in the bark of oak, chestnut and hemlock, formerly the chief source of tannin material in the northern hemisphere, scattered distribution has resulted in the richest tan-bearing species only being used in Australia. These are:—Golden wattle (*Acacia pycnantha*), black or green wattle (*Acacia decurrens* or *mollissima*), and mallet (*Eucalyptus astringens*).

In pre-war days the production of wattle bark was more than sufficient for local requirements, and an export trade was built up. The supply diminished during the six years ending 1926-27, and Australia imported on the average about 2,900 tons each year from Natal, where the plantations were originally started from Australian seed. Since 1927-28, however, exports exceeded imports in every year except 1936-37, the annual excess value averaging £17,432 during the past five years. The chief exporting States are South Australia, Tasmania and Western Australia. This matter is referred to in tables appearing in § 8 hereinafter. The other valuable tan bark, mallet (*Eucalyptus astringens*) of Western Australia, is not extensively used in Australian tanneries, but it is exported to Europe and other countries, where it is used for producing a tannin

extract. A brief account of the work done by the Council for Scientific and Industrial Research in connexion with tanning materials will be found in Official Year Book No. 22, page 743. The production of extract from the bark of karri (*Eucalyptus diversicolor*), of which very large quantities are available at karri sawmills, has passed the experimental stage, and private enterprise has started production on a commercial scale. The experimental work in kino impregnated marri (*Eucalyptus calophylla*) bark is not yet complete. The production of tan bark in Australia is estimated to exceed 25,000 tons per annum.

3. **Value of Production.**—As the outcome of a series of conferences of Australian Statisticians it is now possible to present the value of forestry production on a more satisfactory basis than was possible hitherto. Provision is made for the inclusion of all phases of forestry output, including forest sawmills, the production of logs, poles, piles, sleepers and other hewn timber, firewood, sandalwood and gums and resins. All of these items are not yet collected in all the States, but the omissions are not serious.

GROSS, LOCAL AND NET VALUE OF FORESTRY PRODUCTION, 1936-37.

State.	Gross Production Valued at Principal Markets.	Marketing (costs.	Gross Production Valued at Place of Production.	Value of Other Materials Used in Process of Production.	Net Value of Production.(a)	
	£	£	£	£	£	
New South Wales ..	2,229,000	133,000	2,096,000	..	2,096,000	
Victoria ..	1,121,312	218,205	903,107	171,330	731,777	
Queensland ..	2,429,000	243,000	2,186,000	..	2,186,000	
South Australia ..	623,201	52,509	570,692	..	570,692	
Western Australia ..	1,515,852	175,264	1,340,588	20,436	1,314,152	
Tasmania ..	462,200	54,900	407,300	..	407,300	
Total {	1936-37	8,380,565	876,878	7,503,687	197,766	7,305,921
	1935-36	7,641,162	806,524	6,834,638	27,042	6,807,596
	1934-35	7,331,603	867,464	6,464,139	26,791	6,437,348
	1933-34	5,853,862	716,712	5,137,150	..	5,137,150

(a) No account has been taken of maintenance costs and depreciation.

NOTE.—The relative proportions of marketing costs to gross production suggest that complete uniformity in method has not yet been attained.

4. **Employment.**—The number of persons employed in forestry operations as revealed by the Census of the Commonwealth of Australia at the 30th June, 1933, is shown in the following table. With the exception of those employed in forest sawmills referred to in Chapter XXIV, no later details are available.

EMPLOYMENT IN FORESTRY, 30th JUNE, 1933.

Sex.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total. (a)
	No.	No.	No.	No.	No.	No.	No.
Males ..	6,446	7,225	4,054	1,549	4,189	2,376	25,839
Females ..	38	29	27	8	7	5	114
Total ..	6,484	7,254	4,081	1,557	4,196	2,381	25,953

(a) Not including Northern Territory, 11, and Australian Capital Territory, 152.

§ 7. Commercial Uses of Principal Australian Timbers.

1. **General.**—The uses of the more important Australian timbers are many and various, and are indicated in previous issues of this work. (See Official Year Book No. 6, pp. 454-6; and Official Year Book No. 10, Section III, § 7 and 8.)

A list of Australian timbers best known on the local markets appeared in Official Year Book No. 20, p. 713. [Further references are made in "Timber and Forest Products of Queensland" (E. H. F. Swain), published in 1928.]

2. **Lack of Uniformity in Nomenclature.**—Unfortunately the vernacular names applied to the gums, ironbarks, etc., in the various States, and even in different parts of the same State, do not always refer to identical timbers. The resulting confusion has not only been productive of loss, but it has, to some extent, prejudicially affected the timber trade. This subject is referred to at some length in the special article "Australian Eucalyptus Timbers" in Section III., § 7 and 8, of Official Year Book No. 10. At the Forestry Conferences previously mentioned, the matter came up for special consideration, and steps were taken to establish a uniform nomenclature.

§ 8. Oversea Trade.

1. **Imports.**—(i) *Dressed Timber.* The quantities and values of timber imported into Australia during the four years 1933–34 to 1936–37 inclusive are shown according to countries of origin in the following tables:—

DRESSED TIMBER.—IMPORTS, AUSTRALIA.

Country of Origin.	Quantity.				Australian Currency Values.			
	1933–34.	1934–35.	1935–36.	1936–37.	1933–34.	1934–35.	1935–36.	1936–37.
	sup. ft.	sup. ft.	sup. ft.	sup. ft.	£	£	£	£
United Kingdom ..	21,133	21,839	309	2,609	1,536	2,075	34	238
Canada ..	4,672,603	2,739,032	4,301,411	6,772,468	36,064	26,896	44,625	66,826
Other British Countries ..	10,246	38,356	208,443	98,196	94	1,225	2,910	883
Norway ..	4,510,036	4,688,158	5,972,177	5,383,893	42,499	46,646	53,670	51,902
Sweden ..	3,803,000	3,911,008	2,041,848	2,504,871	37,538	38,794	18,299	28,514
U.S. of America ..	1,105,408	2,098,135	1,637,157	2,326,883	8,334	23,116	13,891	18,523
Other Foreign Countries ..	1,019,977	742,195	1,967,025	249,150	13,733	11,835	18,379	4,699
Total ..	15,143,313	14,838,770	16,128,430	17,238,011	139,798	150,587	151,806	171,585

The figures in the table above are exclusive of items such as architraves, veneers, etc., quantities for which are either not shown, or are expressed in dissimilar units in the Customs entries. The total value of the items so excluded amounted to £70,024 in 1936–37 including plywood, veneered or otherwise, £19,197.

The bulk of the imports of dressed timber comes from Norway, Sweden, Canada and United States of America. Practically the whole of this timber consists of softwoods—deal and pine—used for lining, weatherboards, flooring, shelving, doors, box-making, etc.

(ii) *Undressed Timber.* Australian imports of undressed timber for the years 1932–33 to 1936–37 are given hereunder:—

UNDRESSED TIMBER, INCLUDING LOGS.(a) —IMPORTS, AUSTRALIA.

Country of Origin.	Quantity.					Australian Currency Values.				
	1932–33.	1933–34.	1934–35.	1935–36.	1936–37.	1932–33.	1933–34.	1934–35.	1935–36.	1936–37.
	1,000.	1,000.	1,000.	1,000.	1,000.	£	£	£	£	£
	sup. ft.	sup. ft.	sup. ft.	sup. ft.	sup. ft.					
United Kingdom ..	132	218	523	202	75	13,933	19,565	20,542	15,600	8,513
Canada ..	135,016	184,869	212,227	265,016	261,223	509,311	610,097	762,747	825,777	959,891
India ..	42	17	93	101	127	2,139	863	3,856	4,299	5,859
Malaya (British) ..	131	99	185	194	117	1,120	770	730	730	894
New Zealand ..	25,653	26,784	38,702	36,697	17,095	315,922	326,102	508,658	452,167	247,935
Other British Countries ..	1,751	2,366	4,398	3,600	4,274	11,280	14,402	28,055	34,212	28,064
Japan ..	694	1,334	916	1,186	786	7,429	17,365	12,584	14,166	10,411
Netherlands East Indies ..	..	71	2	41	..	..	152	104	185	..
Norway ..	175	236	798	33	..	..	2,149	7,172	237	90
New Caledonia ..	..	..	..	..	..	1,419	..	..	..	..
Philippine Islands ..	716	2,702	4,589	3,949	3,390	6,432	21,384	41,394	37,138	31,566
Sweden ..	1,872	1,935	3,486	2,251	2,549	14,076	15,802	28,732	16,778	20,116
U.S. of America ..	20,841	21,379	38,717	39,863	23,485	150,233	212,472	264,023	341,432	218,937
Other Foreign Countries ..	1,641	1,730	2,745	5,015	5,042	5,423	14,895	20,442	31,307	33,990
Total ..	189,663	243,679	308,001	358,148	318,173	1,107,726	1,256,027	1,609,044	1,774,124	1,560,266

(a) Exclusive of timber not measured in super. feet.

By far the larger proportion of the undressed timber imports consists of softwoods such as oregon, redwood, hemlock, western red cedar and yellow pine from Canada and the United States; kauri, rimu and white pine from New Zealand; and red and white deals from Norway and Sweden. Amongst the hardwoods imported the principal are oak from the United States of America and Japan, and furniture woods from the Pacific Islands.

2. Exports.—(i) *Undressed Timber*. The quantity and value of undressed timber exported from 1932–33 to 1936–37 are given below, the countries of destination being also shown:—

UNDRESSED TIMBER, INCLUDING LOGS.(a)—EXPORTS, AUSTRALIA.

Country to which Exported.	Quantity.					Value.(b)				
	1932–33.	1933–34.	1934–35.	1935–36.	1936–37.	1932–33.	1933–34.	1934–35.	1935–36.	1936–37.
	1,000 sup. ft.	1,000 sup. ft.	1,000 sup. ft.	1,000 sup. ft.	1,000 sup. ft.	£	£	£	£	£
United Kingdom ..	7,918	8,293	12,196	12,875	15,740	109,872	101,692	142,000	147,530	182,981
Canada ..	39	156	103	140	127	622	2,530	1,920	2,505	2,474
Ceylon ..	2,455	1,184	764	635	760	21,930	12,311	7,043	6,353	7,941
Hong Kong ..	2,766	102	37	..	69	20,343	1,019	200	..	621
India ..	4	..	83	438	..	44	..	111	4,514	..
Malaya (British) ..	..	2	..	..	..	..	20	877	..	..
Mauritius ..	624	421	276	432	403	4,575	4,250	2,777	4,738	5,014
New Zealand ..	3,182	6,349	9,991	12,842	15,055	40,185	77,557	126,089	160,382	209,419
Pacific Islands—										
Fiji ..	506	414	555	727	736	7,037	6,136	8,658	10,832	11,661
Gilbert and Ellice Islands Colony ..	39	29	17	38	17	711	635	286	716	955
Papua ..	165	52	93	139	118	1,068	823	1,416	2,344	2,056
Solomon Islands ..	65	54	72	94	184	1,169	916	1,207	1,532	3,301
Territory of New Guinea ..	99	146	145	187	136	1,254	1,070	2,011	2,355	2,472
Other Islands ..	68	88	47	53	156	1,232	1,433	817	867	2,617
Union of South Africa ..	3,403	2,914	5,438	5,399	5,097	38,092	33,285	62,047	64,957	57,768
Other British Countries ..	278	..	18	18	112	2,968	..	173	211	2,071
Africa, Portuguese ..	1,096	1,295	1,852	574	382	11,844	14,372	21,104	7,271	4,370
East ..	573	412	528	1,078	518	5,746	4,257	8,086	11,181	7,117
Belgium ..	684	180	1,621	1,153	746	5,308	1,710	16,227	11,504	7,443
China ..	144	31	187	392	132	1,444	357	1,871	3,910	1,317
Egypt ..	143	165	448	236	298	1,470	1,767	5,048	2,625	4,661
Germany ..	2	..	..	..	..	39	..	..	..	..
Japan ..	716	376	307	73	189	6,942	3,894	3,400	974	2,081
Netherlands ..	..	..	..	..	..	..	..	..	..	..
Pacific Islands ..	..	..	..	..	..	..	..	..	..	..
New Caledonia ..	4	72	85	210	60	57	1,115	1,135	3,412	1,075
New Hebrides ..	9	16	19	39	57	165	278	355	477	854
Other Islands ..	6	16	80	15	36	136	355	1,932	343	862
United States of America ..	404	916	1,656	2,445	2,800	6,449	18,875	37,335	63,081	84,896
Other Foreign Countries ..	(c) 1,117	33	290	(c) 75	78	(c) 11,207	331	2,901	(c) 1,339	885
Australian Produce ..	26,500	23,716	36,911	40,307	44,056	302,809	291,945	455,661	516,022	606,702
Other Produce ..	386	113	580	812	1,134	1,011	3,377	1,888	6,160	16,001
Total ..	26,885	24,129	37,491	41,119	45,190	306,820	295,322	460,310	522,191	622,703

(a) Exclusive of Timber not measured in super. feet.

(b) Australian currency values.

(c) Includes Iraq, 1,097,000 super. feet, £10,971, in 1932–33, and 19,127 super. feet, £207, in 1935–36.

The bulk of the exports of undressed timber was consigned to South Africa, New Zealand and the United Kingdom, and consisted largely of the Western Australian hardwoods, jarrah and karri, which have earned an excellent reputation for such purposes as railway sleepers, harbour works, wood paving, etc. Considerable quantities of pole, pile and girder timber are also exported from New South Wales to New Zealand.

(ii) *Sleepers.* Prior to the year 1933-34 particulars of the quantities and values of sleepers exported were included in the table relating to Undressed Timber, including Logs. These details have been separated in the export returns and are now shown in the following table :—

SLEEPERS.—RAILWAY—EXPORTS, AUSTRALIA.

Country to which Exported.	Quantity.		Value.(a)	
	1935-36.	1936-37.	1935-36.	1936-37.
	sup ft.	sup. ft.	£	£
United Kingdom	..	532,200	..	5,322
Ceylon	368,700	2,439,599	3,263	27,335
Hong Kong	90,690	..	680	..
Mauritius	..	272,512	..	2,521
New Zealand	8,538,619	7,851,226	69,475	57,241
Pacific Islands	178,249	302,251	2,394	3,177
Union of South Africa ..	7,528,343	4,843,067	74,276	48,506
Other British Countries ..	1,167,278	531,756	9,962	5,317
Africa, Portuguese East ..	98,508	29,892	1,018	290
China	4,986,036	10,332,098	49,631	105,242
Egypt	8,245,968	2,435,520	82,460	24,355
Iraq	2,174,999	2,753,058	21,401	27,530
Persia	1,437,024	..	14,370	..
Total	(b)34,814,414	(c)32,323,179	328,930	306,845

(a) Australian currency values.
1,190.380.

(b) Number of sleepers, 1,290,064.

(c) Number of sleepers,

3. **Classification of Imports and Exports.**—(i) *General.* The quantities of timber classified according to varieties imported and exported during the year 1936-37 are given in the next table :—

TIMBER, VARIETIES IMPORTED AND EXPORTED. —QUANTITIES, AUSTRALIA 1936-37.

Description.	Unit of Quantity.	Imports.	Exports.	Excess of Imports over Exports.
Dressed	sup ft.	17,238,010	883,259	16,354,751
Undressed, including logs ..	"	318,172,807	45,190,273	272,982,534
Sleepers	"	(c)	32,323,179	-32,323,179
Architraves, mouldings, etc ..	lin. ft.	17,499	16,315	1,184
Plywood, veneered or otherwise ..	sq. ft.	2,972,022	(b)	2,972,022
Palings	No.	..	156,250	-156,250
Shingles	"	730,385	..	730,385
Staves—				
Dressed, etc.	"	578,688	..	578,688
Undressed	"	1,064,415	..	1,064,415
Laths—				
For blinds	"	(a)	(a)	(a)
Other	"	224,010	4,990	219,020
Doors	"	3	(a)	(a)
Wood pulp	ton	45,750	(b)	45,750
Veneers	"	(a)	(a)	(a)
Spokes, rims, felloes, etc. ..	"	(a)	(a)	(a)
Other	"	(a)	..	(a)

(a) Quantity not available separately.

(b) Exports not recorded separately.

(c) Imports not recorded

NOTE.—The minus sign (—) denotes an excess of exports.

Similar particulars relative to the values of imports and exports during the year 1936-37 are shown hereunder :—

TIMBER, VARIETIES IMPORTED AND EXPORTED.—VALUES, (b) AUSTRALIA, 1936-37.

Description.	Imports.	Exports.	Excess of Imports over Exports.
	£	£	£
Dressed	171,585	20,805	150,780
Undressed, including logs	1,566,266	622,703	943,563
Sleepers	(c)	306,845	—306,845
Architraves, mouldings, etc.	1,199	119	1,080
Plywood, veneered or otherwise	19,197	(a)	19,197
Palings	..	1,601	—1,601
Shingles	1,288	..	1,288
Staves—			
Dressed, etc.	24,492	..	24,492
Undressed	20,079	..	20,079
Laths—			
For blinds	1	69	—68
Other	334	11	323
Doors	1	342	—341
Wood pulp	400,518	(a)	400,518
Veneers	47,839	25,549	22,290
Spokes, rims, felloes, etc.	26	965	—939
Other	3,845	..	3,845
Total	2,256,670	979,009	1,277,661

(a) Exports not recorded separately.

(b) Australian currency values.

(c) Imports not recorded separately.

NOTE.—The minus sign (—) denotes an excess of exports.

(ii) *Sandalwood*. A considerable quantity of sandalwood is exported, principally from Western Australia to Hong Kong and China, where it is highly prized and largely used for artistic and ceremonial purposes. Particulars for the last five years are as follows :—

SANDALWOOD.—EXPORTS, AUSTRALIA.

Country to which Exported.	Quantity.					Value.(a)				
	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
	ton.	ton.	ton.	ton.	ton.	£	£	£	£	£
Hong Kong	3,481	2,309	2,390	1,208	2,120	95,575	64,735	70,007	32,842	63,344
India	144	203	112	75	105	1,311	6,216	3,475	2,339	3,279
Malaya (British)	99	168	112	99	140	2,623	5,115	3,409	2,997	4,283
Other British Countries	15	11	17	12	20	450	340	543	351	620
China	715	1,212	1,025	932	1,154	20,413	36,358	30,773	27,513	34,426
Other Foreign Countries	(b)400	(c) 50	14	26	16	(b)9,285	(c)1,537	434	803	496
Total	4,854	3,953	3,670	2,352	3,555	132,657	114,301	108,641	66,845	106,448

(a) Australian currency values, tons, £953 to Japan.

(b) Includes 386 tons, £3,805 to Japan.

(c) Includes 31

(iii) *Tan Bark*. Tan bark figures both as an export and an import in the Australian trade returns. The table hereunder refers to exports:—

TAN BARK.—EXPORTS, AUSTRALIA.

Country to which Exported.	Quantity.					Value.(a)				
	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
	cwt.	cwt.	cwt.	cwt.	cwt.	£	£	£	£	£
United Kingdom ..	..	..	..	305	..	..	..	..	162	..
New Zealand ..	35,795	26,387	33,810	20,001	10,808	17,777	13,636	16,536	9,482	6,024
Other British Possessions ..	2	..	40	..	..	1	..	26	..	..
Germany ..	21,333	3,206	6,007	1,517	515	10,041	2,273	2,356	1,101	228
Other Foreign Countries ..	19,464	11,757	40	1,941	1,514	8,073	5,340	18	914	2,155
Total ..	76,594	41,350	39,897	23,764	12,837	35,892	21,249	18,936	11,659	8,407

(a) Australian currency values.

For a number of years prior to 1927-28 Australia had to import large quantities of tanning bark, but thereafter imports dropped to negligible quantities and exports rose annually to 89,061 cwt. in 1931-32. After 1931-32 exports declined each year to 12,837 cwt. in 1936-37 and imports rose in the latter year to 18,216 cwt., of which 15,487 cwt. consisted of wattle bark imported from South Africa.

A comparison of the imports and exports of tan bark during the last five years is given in the next table:—

TAN BARK.—IMPORTS AND EXPORTS, AUSTRALIA.

Particulars.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
	cwt.	cwt.	cwt.	cwt.	cwt.
QUANTITIES—					
Imports	200	1	2,556	4,362	18,216
Exports	76,594	41,350	39,897	23,764	12,837
Excess of exports over imports	76,394	41,349	37,341	19,402	-5,379
VALUES (a)—	£	£	£	£	£
Imports	101	1	827	1,395	6,660
Exports	35,892	21,249	18,936	11,659	8,407
Excess of exports over imports	35,791	21,248	18,109	10,264	1,747

(a) Australian currency values.

NOTE.—The minus sign (—) denotes an excess of imports.

The imports consist almost exclusively of wattle bark from the plantations in South Africa. One variety of Australian wattle is found to flourish in the sandy belts near the coast, but it is the *Acacia decurrens*, var. *mollis*, which is chiefly relied upon for the production of wattle bark in the South African plantations. Seed has been tried from New South Wales, Tasmania and Victoria, but it is stated that most of the seed is obtained from the best wattle bark areas in eastern Tasmania and western Victoria.

Two reasons are given to account for the success of the industry in the Union of South Africa:—(a) It is found that the treeless, grassy highlands of Natal are specially suitable for wattle culture, and the trees can therefore be grown in rows and economically attended to, while the necessary bark sheds and other appurtenances can be placed in the most advantageous positions; and (b) there is an abundance of cheap and efficient native labour.

(iv) *Other Tanning Substances*. Considerable quantities of tanning substances other than bark are annually imported into Australia. The total value of the importations in 1936-37 was £52,051, and was composed as follows:—Wattle bark extract, £3,020; quebracho extract, £15,553; other extract, £10,718; and valonia, myrobalans, cutch, etc., £23,360.

CHAPTER XXIII.

FISHERIES.*

§ 1. General.

1. **Fish Stocks.**—Australia possesses an abundant and varied fish fauna, which embraces both tropical and temperate varieties and includes destructive as well as valuable species. In rivers and lakes both indigenous and imported varieties thrive. The latter have been introduced and acclimatized for industrial and sporting purposes by Governments and angling societies. Exploitation of the fishing areas is controlled by governmental authority. In some cases the minimum size of the fish to be taken is fixed, and in other cases the taking of some kinds is prohibited during periods prescribed according to the necessity.

2. **Progress of Industry.**—(i) *Transport and Marketing.* Despite the abundance of edible fish, the progress of the fishery industry in Australia has been slow, the difficulties of transport and marketing of the proved supplies presenting the chief obstacles.

In New South Wales, as shown in § 5 herein and § 6 of this Chapter in Official Year Book No. 17, the matter of exploiting trawlable fish was undertaken by the State Government, which also took steps to improve the conditions under which ordinary coastal fishing is carried on. In Queensland, State trawling was undertaken in 1919, and good trawling areas have been located and charted between Cape Moreton and Caloundra.

(ii) *Economic Investigations.* Although valuable work has been carried out by the State Governments in the way of experiment and culture, much yet remains to be done before the industry is at all commensurate in extent with the industrial progress or consuming capacities of Australia. All live fish imported into Australia are examined on shipboard in order to prevent the importation of undesirable fish. With the object of ascertaining the movements of oceanic fishes, and of estuarine fishes which make periodical oceanic migrations, reports are furnished regarding the various kinds of fishes, etc., and their movements along the coast. Details regarding the activities of the States in fish-culture were given in Official Year Book No. 6, pp. 471-2. By arrangement with the Commonwealth Fisheries Department some years ago members of the staff of the Australian Museum, Sydney, accompanied the F.I.S. *Endeavour* on various cruises. Specimens were collected, mounted for scientific purposes, and distributed to other Australian Museums, a considerable number being put aside for the Commonwealth Fishery Museum. As pointed out in § 4, however, this vessel was lost with all hands in 1914.

With the object of reviewing the potentialities of the fishing industry of Australia the Development and Migration Commission convened a meeting of State and Commonwealth representatives. The Conference, which was held in Melbourne during September, 1927, affirmed:—

(1) The importance of establishing a Marine Biological Institution to study the scientific problems connected with Australian fisheries, and to collect and disseminate authoritative information and give advice on matters concerning the fisheries.

(2) The desirability of establishing an experimental trawling unit to explore the fisheries resources of Australia.

Committees were formed to deal with important problems concerning the preservation, transportation, marketing and distribution of fish, the canning and curing of fish, the production of fish by-products, the factors of destruction in fisheries, the development of the oyster industry, etc. The reports prepared by these Committees were submitted to a further conference held in July, 1929, at which the Commonwealth Government and all State Governments were represented; it was then unanimously recommended that investigation work should be undertaken by the Commonwealth Government. The Commonwealth Government has entrusted this task to the Council for Scientific and

* A specially contributed article dealing with the Marine and Fresh Water Fisheries of Australia appeared as § 6 of this Chapter in Official Year Book No. 17 (*vide* pp. 752 to 767 therein).

Industrial Research and is providing a sum of £80,000, spread over a period of five years, to cover fishery research and investigation under the following main heads: (i) to procure a vessel specially designed for the exploration of pelagic or surface-swimming fish, but which could also carry out certain investigations of demersal or bottom-dwelling species, (ii) to undertake experiments in the canning of fish and the determination of the chemical composition of fish thought to be suitable for the manufacture of fish by-products, (iii) the determining, by tests, of the best methods of curing and preserving fish, especially the more common varieties, and (iv) in co-operation with the State authorities, to undertake a study of the systems of distribution of fish in each State with a view to the improvement of existing transport and marketing facilities. The construction of a trawler at a cost of £17,000 has been completed and the vessel was commissioned in May, 1938. A programme of work has been prepared extending over a period of five years. During the first three years, the investigation will be concentrated on the south-eastern portion of the Australian coast. After that period, the investigation will be extended, within limits, to the south-western portion of the Continent. Experimental cruises completed so far have revealed the presence of four kinds of tuna (bonito, little-tunny, skipjack and yellow-fin) and other commercial species. The erection of a Fisheries Laboratory and Research Station at Port Hacking in New South Wales is expected to be completed by June, 1939.

A Commonwealth Director of Fisheries, who has been entrusted with the task of carrying out these investigations, has been appointed for a period of five years. Other steps have been taken to initiate action according to the programme outlined above including the building up of a staff of trained investigators. It is hoped that, as a result of the knowledge gained from this investigation, the fishery industry of Australia will develop more in keeping with the advancement made by other branches of production.

3. Consumption of Fish.—It has been said that the Australians are not fish-eating people, seeing that the annual consumption of fish per head of population in Great Britain is set down at 42 lb., while in Australia it has been estimated at only 13 lb. There are frequent complaints that the distribution service does not give the public adequate opportunity to satisfy its appetite for a fish diet.

4. Oyster Fisheries.—Natural oyster beds exist on the foreshores in the shallow waters of inlets and estuaries in several parts of Australia. By husbanding the natural crop, and by judicious transplanting, the output has been very materially augmented. The areas are leased by the Government to private persons, lengths of foreshore being taken up under oyster leases. In New South Wales and Queensland the industry has thriven, and small yields are obtained in South Australia, Victoria and Tasmania.

5. Pearl-Shell, Pearls, Bêche-de-mer, etc. (i) *General.* Pearl-shelling is carried on in the tropical waters of Queensland, the Northern Territory and Western Australia. The pearl oyster inhabits the northern and western coastal waters from Cape York to Shark Bay, a length of shore of over 2,000 miles. The shells are marketed in considerable quantities, and pearls are obtained in Queensland, Western Australia and the Northern Territory. The fishing is generally conducted with the aid of diving apparatus in water varying from 4 to 20 fathoms in depth. In Queensland and the Northern Territory the bêche-de-mer industry is carried on, and tortoise shell is obtained on the coasts. Experiments have been made in cultivating the pearl oyster on suitable banks. In October, 1911, a pearl weighing 178 grains, and valued at £3,000, was obtained at Broome. Further details regarding pearl-shelling are given in *Official Year Book No. 6*, p. 463. The value of trochus-shell of Australian origin exported during 1937-38 was £32,147.

(ii) *Royal Commission on Pearl-shelling Industry.* In accordance with the "White Australia" policy it was originally determined that the employment of Asiatic labour in the pearl-shelling industry should be restricted, and ultimately cease, and it was proposed that after 31st December, 1913, permits to bring in Asiatics for the pearling fleet should no longer be issued. In view, however, of the disorganization of the industry occasioned by the war, the time was extended to the 30th June, 1918, after which date permits to introduce Asiatic labour were to be granted only in cases where the diver and tender of a

boat were Europeans. The Royal Commission appointed in March, 1912, presented its final report in 1916. The Commissioners stated that, though it might be practicable, they did not consider it advisable or profitable to attempt to transfer the industry from Asiatics to Europeans. They further stated that, while the labour employed is almost entirely Asiatic, they did not consider that the "White Australia" policy would be weakened or imperilled by allowing the industry to continue as then conducted.

(iii) *Tariff Board Inquiry.* Arising from an application for the payment of a bounty on pearl-shell gathered by fishing vessels registered in Australia, the industry was the subject of an inquiry by the Tariff Board which presented its report in 1935. The Board did not approve the granting of a bounty but recommended some relief to the industry in the form of the remission of primage and customs duty.

§ 2. The Fishing Industry.

1. *Boats and Men Engaged, and Take.*—(i) *General Fisheries.* The returns have been compiled from particulars supplied by the State Departments, and while the data do not generally lend themselves to presentation on a uniform basis, the principal facts have been incorporated in the tables hereunder :—

GENERAL FISHERIES, 1936-37.

State or Territory.	No. of Boats Engaged.	Value of Boats and Equipment.	No. of Men Employed.	Total Take of—		Gross Value of Take—	
				Fish.	Spiny Lobster (Crayfish).	Fish.	Spiny Lobster (Crayfish).
	No.	£	No.	cwt.	doz.	£	£
New South Wales(a)	1,545	6114,724	(c)2,724	236,762	12,785	660,330	(d)61,623
Victoria..	711	99,270	1,360	116,410	12,319	203,803	10,406
Queensland	866	74,099	1,798	(e)76,360	(f)8,111	(e)156,787	f(g)6,300
South Australia(a)	950	140,000	1,450	71,500	20,000	200,000	15,500
Western Australia(a)	276	52,138	610	35,521	24,626	111,891	(h)12,116
Tasmania(a)(i)	205	56,244	200	19,914	7,399	36,082	36,008
Northern Territory	2	420	5	172	..	439	..
Total ..	4,555	536,895	8,237	556,645	151,838	1,369,332	142,943

(a) Year ended December, 1936. (b) Boats only. (c) Fishermen's licences issued. (d) Including £15,911, the value of 13,000 cwt. of prawns and 10,000 dozen crabs. (e) Includes prawns. (f) Crabs. (g) Including 30 turtles valued at £45. (h) Including prawns, £2,885, and crabs £612. (i) Includes oyster fisheries.

Returns for Australia for the last five years are given in the table below :—

GENERAL FISHERIES.—AUSTRALIA.

Particulars.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
No. of boats engaged ..	..	4,348	4,278	4,272	4,555
No. of men employed ..	..	8,656	8,405	8,151	8,237
Fish obtained—					
Quantity ..	cwt.	568,324	561,035	557,214	540,167
Gross value ..	£	1,183,081	1,151,812	1,150,808	1,180,885
Lobsters obtained—Gross value £	..	118,183	112,409	112,296	117,958
					142,943

(a) Exclusive of South Australia.

(ii) *Edible Oyster Fisheries.* Edible oyster fisheries are of small dimensions outside New South Wales and Queensland. During 1936-37 the available returns show the following takes :—New South Wales, 62,000 cwt., value £70,823 : Queensland, 10,402 cwt., value £13,802. In Tasmania the scallop is far more important than the oyster. In 1936 the scallops taken in Tasmania were valued at £7,800.

Returns for Australia for the last five years are given in the appended table :—

EDIBLE OYSTER FISHERIES.—AUSTRALIA.

Particulars.	1932-33. (a)	1933-34. (a)	1934-35. (a)	1935-36.	1936-37.
No. of boats engaged	727	662	665	699	711
No. of men employed	716	666	675	687	712
Oysters obtained—					
Quantity cwt.	63,825	57,824	58,678	63,501	74,283
Gross value (b) £	94,641	77,590	78,287	89,989	102,683

(a) Exclusive of South Australia.

(b) Including scallops in Tasmania valued at £5,495 in 1932; £6,000 in 1933; £5,500 in 1934; £6,650 in 1935; and £7,800 in 1936.

(iii) *Pearls, Pearl-shell and Bêche-de-mer.* Details regarding the production, trade, etc., for these items, so far as they are ascertainable, are given hereunder. As regards pearls, for obvious reasons no correct estimate can be obtained of the value of those found. Pearl-shell (*Margaritifera*) is widely distributed in North Australian waters over an area facing some thousands of miles of coastline, though not intensively over the whole distance. The north-west beds are the most prolific, but those around and to the north of Cape York are also of importance. There is need for further investigation into the occurrence of this valuable shell, as well as of trochus, green snail, window-pane shell (*Placuna*), the various types of trepang or bêche-de-mer (*Holothuria*), both in tropical Australian waters and those of Papua and the mandated area of New Guinea. Particulars returned for the year 1936-37 are as follows :—

PEARL, PEARL-SHELL AND BÊCHE-DE-MER FISHERIES, (a) 1936-37.

State or Territory.	Number of Boats Engaged.	Value of Boats and Equipment.	Number of Men Employed.	Quantity of Pearl-shell obtained.	Gross Value of Pearl-shell obtained.	Gross Value of Pearls obtained. (b)	Gross Value of Bêche-de-mer obtained.	Gross Value of Tortoise-shell obtained.
	No.	£	No.	Tons.	£	£	£	£
Queensland (c)	95	96,750	1,305	1,174	149,427	35	5,729	19
Western Australia (d) ..	90	60,435	614	825	102,817	5,200	86	132
Northern Territory	36	30,000	322	781	88,000	260	680	14
Australia	221	187,185	2,241	2,780	340,244	5,495	6,495	165

(a) No pearl-shelling industry in New South Wales, Victoria, South Australia and Tasmania.

(b) Incomplete; as returned.

(c) Also trochus-shell to the value of £37,617 in Queensland.

(d) Year ended December, 1936.

(e) Also 7 cwt. trochus-shell valued at £30.

The figures for tortoise-shell and trochus-shell as returned are defective, as the necessary information is not collected in full detail. In the following summary of production during the last five years export figures of Australian origin are inserted for both of these items :—

PEARL, PEARL-SHELL AND BÊCHE-DE-MER FISHERIES.—AUSTRALIA.

Particulars.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
No. of boats engaged	231	237	230	215	221
No. of men employed	2,064	2,339	2,599	1,991	2,241
Pearl-shell obtained—					
Quantity tons	1,419	1,675	2,107	2,275	2,780
Value £	214,747	202,755	201,243	239,952	340,244
Pearls obtained (a)—					
Value £	8,171	9,361	9,439	6,031	5,495
Bêche-de-mer obtained—					
Quantity tons	(b)	(b)	(b)	(b)	(b)
Value £	19,265	18,362	14,392	15,082	6,495
Tortoise-shell exported—					
Value £	210	696	747	402	367
Trochus-shell exported—					
Value £	49,525	41,596	44,694	41,590	51,209

(a) Incomplete; as returned.

(b) Not returned.

2. **Value of Production.**—As the outcome of a series of conferences by Australian Statisticians it is now possible to present the value of production of the fishing industry on a more satisfactory basis than was possible hitherto. It should be remembered, however, that the actual collection of statistics of the quantity of fish taken presents many difficulties and the gross values are not complete in some of the States. Particulars of the value of other materials used in the process of production are not available for all States, and consequently the values can only be stated at the point of production and not on a net basis as has been done with other industries. Variations in the relative proportions of marketing costs to gross production suggest that complete uniformity in method has not yet been attained.

GROSS AND LOCAL VALUE OF FISHERIES PRODUCTION, 1936-37.

State.	Gross Production Valued at Principal Markets.	Marketing Costs.	Gross Production Valued at Place of Production.
	£	£	£
New South Wales	802,000	152,000	650,000
Victoria	214,212	52,213	161,999
Queensland	370,000	34,000	336,000
South Australia	216,675	32,006	184,669
Western Australia	232,272	7,840	224,432
Tasmania	80,900	..	80,900
Total { 1936-37	(a) 1,916,059	278,059	1,638,000
{ 1935-36	(a) 1,743,094	291,634	1,452,060
{ 1934-35	(a) 1,595,127	252,111	1,343,016
{ 1933-34	(a) 1,578,328	248,603	1,329,725

(a) Not including production in the Northern Territory of a gross value of £89,446 in 1936-37; £73,109 in 1935-36; £41,526 in 1934-35; and £42,915 in 1933-34.

3. **Fish Preserving.**—To encourage the industry the Federal Parliament provided a bounty of $\frac{1}{2}$ per lb. for fish preserved as prescribed during the ten years 1907-8 to 1916-17. This failed to develop the industry, and was not renewed on its expiration in 1916-17. The amount of bounty paid during the ten years was only £3,005. Consideration of a further attempt to develop this branch of the fishing industry is now receiving the attention of the Commonwealth Government. Details of the proposals are shown in § 1 hereinbefore.

4. **State Revenue from Fisheries.**—The revenue from fisheries in each State during the year 1936-37 is given hereunder:—

FISHERIES.—REVENUE, 1936-37.

State or Territory.	Licences.	Leases.	Fines and Forfeitures.	Other Sources.	Total.
	£	£	£	£	£
New South Wales (a)	1,943	9,233	545	465	12,186
Victoria (b)	1,184	15	508	37	1,744
Queensland	3,277	1,747	140	16	5,180
South Australia (a)	1,400	..	..	..	1,400
Western Australia (a)	1,170	556	424	601	2,751
Tasmania (a)	790	..	..	151	941
Northern Territory	356	1	..	..	357
Total	10,120	11,552	1,617	1,270	24,559

(a) Year ended December, 1936.

(b) Excluding £3,256 received from sporting licences.

Similar particulars for Australia for the last five years are given in the following table:—

FISHERIES.—REVENUE, AUSTRALIA.

Particulars.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
	£	£	£	£	£
Licences	9,428	9,545	8,976	8,445	10,120
Leases	12,508	12,319	12,265	12,517	11,552
Fines and Forfeitures	960	957	903	1,224	1,617
Other Sources	558	851	842	960	1,270
Total	23,454	23,672	22,986	23,146	24,559

§ 3. Oversea Trade in Fishery Products.

1. Imports of Fish.—The development of the local fishing industry leaves much to be desired, as is evident from the large imports. For the last five years the imports were as follows:—

FISH.—IMPORTS, AUSTRALIA.

Australian Currency Values.

Classification.		1933-34.	1934-35.	1935-36.	1936-37.	1937-38
Fresh (oysters) ..	cwt.	3,367	4,609	4,982	2,349	893
	£	1,643	2,702	4,044	1,468	881
Fresh, or preserved	cwt.	57,346	70,585	85,777	75,910	79,411
by cold process	£	142,389	204,746	257,870	272,559	288,796
Potted	cwt.	4,900	5,794	7,426	8,419	7,733
	£	82,288	96,451	109,943	118,271	109,685
Preserved in tins ..	cwt.	174,982	209,640	246,525	262,360	247,247
	£	663,238	817,398	929,344	987,235	1,044,287
Smoked, dried, and	cwt.	8,405	13,340	11,102	14,891	14,172
n.e.i.	£	24,602	25,744	20,932	40,944	39,422
Crustaceans ..	cwt.	(a)	4,393	4,008	4,300	5,793
	£	(a)	42,561	38,864	39,369	57,451
Total	cwt.	249,000	308,361	359,820	308,229	355,249
	£	914,160	1,189,602	1,369,997	1,459,846	1,540,522

(a) Not recorded separately.

Tinned fish constitutes by far the largest proportion of the imports; salmon from Canada, herrings from the United Kingdom and sardines from Norway were the chief varieties imported. The potted fish comes chiefly from the United Kingdom, which also supplied a considerable proportion of the fresh fish imported in 1936-37; the bulk of the remainder came from New Zealand and the Union of South Africa. The small import of oysters is supplied by New Zealand, while Japan furnished 4,672 cwt. of the crustaceans imported.

2. **Exports of Fish.**—The exports of fish are comparatively insignificant. During the year 1937-38 they were as follows:—Fresh or preserved by cold process, 95,775 lb. £5,149; oysters, fresh, 16 cwt., £52; potted or concentrated, £539; preserved in tins, 485,879 lb., £16,167; smoked or dried, 42,332 lb., £1,608; other including salted, 263 cwt., £2,229.

3. **Exports of Pearl and Other Shell.**—The exports of pearl, tortoise and trochus-shell of Australian origin are given hereunder for the five years 1933-34 to 1937-38:—

PEARL, TORTOISE AND TROCHUS-SHELL.—EXPORTS, AUSTRALIA.

Article.			1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Pearl-shell ..	..	cwt.	33,721	43,467	56,306	52,058	53,289
		£	198,347	218,463	302,491	319,031	345,550
Tortoise-shell ..	..	lb.	1,292	2,229	663	674	1,129
		£	696	742	402	367	380
Trochus-shell ..	..	cwt.	9,128	10,111	9,260	8,847	6,370
		£	41,550	44,694	41,590	51,209	32,147

The bulk of the pearl-shell exported during 1936-37 was consigned to the United States of America and the United Kingdom, the respective values of the shipments amounting to £237,105 and £75,140, while trochus-shell to the value of £48,559 was dispatched to Japan.

§ 4. The Development of Fisheries in Australia.

In 1907 the Commonwealth Government decided to demonstrate what might be attained commercially by the application of modern methods in fishery. A Federal Investigation Ship, the *Endeavour*, was constructed specially for the work, and a Director of Fisheries was appointed. Experimental cruises were undertaken, which showed that Australia possesses an asset of considerable value in her sea fisheries. The *Endeavour* was unfortunately lost at sea with all on board at the end of 1914. A description of the trawling grounds discovered, data regarding oceanography to the east of Australia, and a list of the publications of the Department will be found on pp. 333 to 335 of the Official Year Book No. 14.

In accordance with the recommendations of the Australian Fisheries Conference of 1927-29 the Commonwealth Government has decided to continue investigations, and the Council for Scientific and Industrial Research has been entrusted with the carrying out of the fisheries programme. This has been referred to in § 1 par. 2 above.

§ 5. Trawling in Australian Waters.

The State Trawling Industry was established in New South Wales in 1915, and fishing operations were conducted with seven steel steam trawlers. The catches were landed at Sydney and Newcastle, and the fish distributed through retail shops, of which there were fourteen in the metropolitan area, one in Newcastle, and five in country towns. Early in the year 1923 the Government discontinued trawling operations, as the venture was not a commercial success. The operations of the trawlers, however, revealed some of the richest trawling areas in the world, and these localities are being successfully exploited by private enterprise.

CHAPTER XXIV. MANUFACTURING INDUSTRY.

NOTE.—Working proprietors are included in all cases in the “Number of Persons Engaged.”

§ 1. Number and Classification of Factories.

1. Number of Factories in each State.—The following table gives the number of factories in each State for the years specified :—

FACTORIES.—NUMBER.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
1932-33 ..	7,444	8,612	2,155	1,710	1,499	910	22,330
1933-34 ..	7,818	8,896	2,345	1,733	1,606	899	23,297
1934-35 ..	8,254	9,100	2,470	1,803	1,658	926	24,211
1935-36 ..	8,486	9,160	2,482	1,895	1,946	925	24,894
1936-37 ..	8,726	9,165	2,883	1,916	2,032	946	25,668

2. Classification of Factories, Australia.—The next table shows the number of factories in Australia for the years specified, classified in the industrial groups agreed upon by the Conference of Statisticians in 1930. This classification which was introduced during the year 1930-31 superseded the grouping which had been in use since 1902. The definition of a factory adopted at the Conference of Statisticians in 1902 is, however, still used, viz., “Any factory, workshop or mill where four or more persons are employed or power is used.” Details in regard to some of the principal industries included in the table will be found in § 9 hereinafter.

FACTORIES.—CLASSIFICATION, AUSTRALIA.

Class of Industry.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
I. Treatment of Non-metalliferous Mine and Quarry Products	374	404	433	462	517
II. Bricks, Pottery, Glass, etc.	362	409	431	450	436
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease	547	589	596	630	655
IV. Industrial Metals, Machines, Implements and Conveyances	5,529	5,789	6,100	6,393	6,788
V. Precious Metals, Jewellery and Plate	242	255	270	277	282
VI. Textiles and Textile Goods	555	588	588	580	577
VII. Skins and Leather	487	511	518	525	537
VIII. Clothing	3,920	4,052	4,220	4,260	4,259
IX. Food, Drink and Tobacco	4,421	4,583	4,657	4,721	4,812
X. Woodworking and Basketware	2,198	2,243	2,446	2,541	2,715
XI. Furniture, Bedding, etc.	947	995	1,020	1,057	1,092
XII. Paper, Stationery, Printing, Bookbinding, etc.	1,624	1,712	1,750	1,781	1,774
XIII. Rubber	304	305	292	290	289
XIV. Musical Instruments	35	32	29	31	34
XV. Miscellaneous Products	312	333	349	371	390
Total, Classes I. to XV.	21,854	22,800	23,708	24,378	25,187
XVI. Heat, Light and Power	476	497	503	516	481
Grand Total	22,330	23,297	24,211	24,894	25,668

The number of factories in operation declined each year from 1928-29 to 1931-32 as the result of the economic depression, but the returns since the last-mentioned year reveal a substantial recovery in every State, the number recorded for Australia in 1936-37 being the highest to date.

3. Classification of Factories, States, 1936-37.—The following table shows the number of factories in each State in 1936-37, classified according to the nature of the industry :—

FACTORIES.—CLASSIFICATION, 1936-37.

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	Aust
	No.	No.	No.	No.	No.	No.	No
I. Treatment of Non-metalliferous Mine and Quarry Products ..	168	179	56	42	56	16	517
II. Bricks, Pottery, Glass, etc. ..	197	108	38	43	36	14	436
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	269	236	44	52	36	18	655
IV. Industrial Metals, Machines, Implements and Conveyances ..	2,401	2,511	620	474	593	184	6,788
V. Precious Metals, Jewellery and Plate ..	78	138	25	18	17	6	282
VI. Textiles and Textile Goods ..	147	351	22	32	14	11	577
VII. Skins and Leather ..	215	208	51	24	20	10	537
VIII. Clothing ..	1,577	1,832	276	283	230	55	4,259
IX. Food, Drink and Tobacco ..	1,438	1,456	752	522	423	251	4,842
X. Woodworking and Basketware ..	835	694	542	147	215	282	2,715
XI. Furniture, Bedding, etc. ..	344	384	138	79	97	50	1,092
XII. Paper, Stationery, Printing, Book-binding, etc. ..	655	665	181	115	130	28	1,774
XIII. Rubber ..	93	102	32	27	24	11	289
XIV. Musical Instruments ..	11	14	3	3	3	..	34
XV. Miscellaneous Products ..	149	164	36	15	23	3	390
Total, Classes I. to XV...	8,577	9,042	2,816	1,876	1,937	939	25,187
XVI. Heat, Light and Power ..	149	123	67	40	95	7	481
Grand Total ..	8,726	9,165	2,883	1,916	2,032	946	25,668

§ 2. Classification of Factories according to Number of Persons Engaged.

1. States, 1936-37.—The following table shows, for each State, the number of factories classified according to the number of persons engaged in 1936-37 :—

FACTORIES.—CLASSIFICATION ACCORDING TO NUMBER OF EMPLOYEES, 1936-37.

No. of Persons Employed in each Factory.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
NUMBER OF FACTORIES.							
Under 4 ..	2,582	3,264	981	462	683	280	8,552
4 ..	810	777	312	214	103	103	2,310
5 to 10 ..	2,362	2,180	761	613	491	307	6,783
11 to 20 ..	1,200	1,208	374	263	214	104	3,363
21 to 50 ..	1,039	996	251	227	160	66	2,730
51 to 100 ..	369	386	102	92	55	13	1,017
Over 100 ..	364	345	102	45	20	13	895
Total ..	8,726	9,165	2,883	1,916	2,032	946	25,668

Some marked changes have taken place in the distribution of factories according to the number of persons engaged during the past decade. In 1926-27 of a total of 21,579 factories reported, 7,641, or 35.42 per cent. had less than five persons engaged whereas in 1936-37 the number of such factories had increased to 10,871 representing 42.4 per cent. of the total of 25,668 factories. The increase in the number of small factories was probably due to the multiplication of small repair establishments (boots and shoes, cycles and motors, etc.) which are technically accounted as factories by the installation of some power machine.

CLASSIFICATION OF FACTORIES ACCORDING TO NUMBER OF EMPLOYEES. 769

In the other groups, the effect of the economic depression during the middle years of the decade is clearly noticeable, but since 1931-32 the improvement has been very steady. Factories with more than 100 persons engaged advanced from 733 in 1926-27 to a new high level of 895 in 1936-37, the persons engaged in these factories increasing from 204,363 or 43.74 per cent. of the total number to 250,764 or 47.2 per cent. during the same period.

The relative importance of large and small factories is more conclusively illustrated by a classification of persons engaged according to the size of factory in which they work:—

FACTORIES. - CLASSIFICATION OF PERSONS ENGAGED, ACCORDING TO SIZE OF FACTORY, 1936-37.

No. of Persons Employed in Group.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
AVERAGE NUMBER ENGAGED DURING PERIOD WORKED.							
Under 4 ..	5,213	6,162	2,073	1,022	1,920	625	17,015
4 ..	3,240	3,108	1,248	856	412	412	9,276
5 to 10 ..	16,236	15,292	5,141	4,174	3,204	2,488	46,535
11 to 20 ..	17,756	17,749	5,444	3,824	3,066	1,514	49,353
21 to 50 ..	33,727	31,579	7,670	6,926	4,963	2,149	87,014
51 to 100 ..	26,194	26,675	7,235	6,175	3,794	920	70,993
Over 100 ..	108,700	92,127	20,529	18,344	5,957	5,107	250,764
Total ..	211,066	192,692	49,340	41,321	23,316	13,215	530,950
Av. per F'cty	24.19	21.02	17.11	21.57	11.47	13.97	20.69

2. Australia, 1932-33 to 1936-37.—The percentage of persons engaged in factories with more than 100 hands on the total for all factories reached its highest level in 1936-37 with 47.2 per cent., which exceeded the previous highest percentage of 46.00 recorded in 1935-36.

FACTORIES. - CLASSIFICATION ACCORDING TO NUMBER OF PERSONS ENGAGED, AUSTRALIA.

Establishments Employing on the Average—

Year.	20 and under.		21 to 100.		101 and upwards.		Total.	
	Es- tablish- ments.	Persons En- gaged.	Es- tablish- ments.	Persons En- gaged.	Es- tablish- ments.	Persons En- gaged.	Es- tablish- ments.	Persons En- gaged.
1932-33 —								
Number ..	18,883	102,477	2,841	117,021	606	163,462	22,330	382,960
Average per establishment ..	..	5.43	..	41.19	..	269.74	..	17.15
Percentage on total ..	84.57	26.76	12.72	30.56	2.71	42.68	100.00	100.00
1933-34 —								
Number ..	19,576	108,125	3,052	127,068	669	181,634	23,297	416,827
Average per establishment ..	..	5.52	..	41.63	..	271.50	..	17.89
Percentage on total ..	84.03	25.94	13.10	30.48	2.87	43.58	100.00	100.00
1934-35 —								
Number ..	20,012	112,708	3,457	143,157	742	204,502	24,211	460,367
Average per establishment ..	..	5.63	..	41.41	..	275.61	..	19.01
Percentage on total ..	82.66	24.48	14.28	31.10	3.06	44.42	100.00	100.00
1935-36 —								
Number ..	20,413	117,443	3,646	153,603	835	230,889	24,894	501,935
Average per establishment ..	..	5.75	..	42.13	..	276.51	..	20.16
Percentage on total ..	82.00	23.40	14.65	30.60	3.35	46.00	100.00	100.00
1936-37 —								
Number ..	21,017	122,179	3,756	158,007	895	250,764	25,668	530,950
Average per establishment ..	..	5.81	..	42.07	..	280.18	..	20.69
Percentage on total ..	81.88	23.01	14.63	29.76	3.49	47.23	100.00	100.00

§ 3. Power used in Factories.

1. Factories other than Central Electric Stations, States, 1936-37.—The following table shows the number of factories using steam, gas, oil, electricity, or water power, and the rated horse-power of engines ordinarily in use and in reserve or idle during 1936-37:—

FACTORIES.(a)—RATED HORSE-POWER OF ENGINES, 1936-37.

State.	Number of Establishments.			Rated Horse-power of Engines.	
	Using Power.	Others.	Total.	Ordinarily in use.	In Reserve or Idle (omitting obsolete).
	No.	No.	No.	H.P.	H.P.
New South Wales ..	8,230	390	8,620	491,828	138,680
Victoria ..	8,454	627	9,081	324,086	105,419
Queensland ..	2,652	180	2,832	156,246	30,335
South Australia ..	1,696	184	1,880	87,541	10,047
Western Australia ..	1,772	169	1,941	56,206	7,300
Tasmania ..	893	48	941	81,405	16,838
Australia ..	23,697	1,598	25,295	1,197,312	308,679

(a) Not including Central Electric Stations.

As a result of the decisions of the Conference of Australian Statisticians in March, 1937, statistics of power used in factories are now collected on a different basis from that used in 1935-36 and previous years. In those years the statistics represented the "average horse-power used" in all factories, including Central Electric Stations, and thereby involved some duplication. In 1936-37 information was obtained in respect of the "rated horse-power" of engines ordinarily in use and of engines in reserve or idle, omitting obsolete engines. In addition, the power equipment of Central Electric Stations was collected in greater detail. The table shown above refers to all factories except Central Electric Stations. Particulars of the types of engines used are given in the next table.

FACTORIES(a).—RATED HORSE-POWER OF ENGINES ORDINARILY IN USE, 1936-37.

Rated Horse-power of Engines ordinarily in use.

State.	Steam.		Internal Combustion.			Water.	Motors driven by electricity		Total. (b)
	Reciprocating.	Turbine.	Gas.	Light Oils.	Heavy Oils.		Purchased.	Own Generation.	
	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
N.S.W. ..	113,212	32,537	5,236	3,958	11,238	257	325,390	78,791	491,828
Victoria ..	38,556	25,058	6,715	3,487	9,080	558	240,026	31,099	324,086
Queensland ..	72,806	5,578	7,389	3,224	12,761	..	54,488	27,745	156,246
S. Australia ..	8,089	..	5,156	2,102	6,742	..	65,452	5,652	87,541
W. Australia ..	7,422	5	2,529	1,273	5,795	..	39,182	4,508	56,206
Tasmania ..	4,878	133	5	1,403	371	209	74,406	124	81,405
Australia ..	244,963	63,311	27,030	15,447	46,593	1,024	798,944	147,919	1,197,312

(a) Excluding Central Electric Stations.

(b) Excluding particulars in previous column.

2. Central Electric Stations, Australia, 1936-37.—Particulars of the capacity of engines and generators installed in Central Electric Stations in Australia in 1936-37 are given in the following table:—

CENTRAL ELECTRIC STATIONS, AUSTRALIA, 1936-37.

Capacity of Engines and Generators.

Particulars.		Steam.		Internal Combustion.			Water.	Total.
		Reciprocating.	Turbine.	Gas.	Light Oils.	Heavy Oils.		
Engines installed—								
Total installed	Rated H.P.	36,589	1,532,785	18,349	1,327	104,969	159,258	1,853,277
Generators installed—								
Kilowatt capacity								
Total installed	K.W.	27,648	1,112,560	12,021	625	81,759	120,606	1,355,219
Effective capacity	K.W.	23,714	937,627	11,158	530	71,543	110,840	1,155,412
Maximum load	K.W.	18,762	805,050	8,578	384	57,494	110,752	1,001,020
Horse-power equipment—								
Total installed	H.P.	37,064	1,491,442	16,115	838	109,602	161,677	1,816,738
Effective capacity	H.P.	31,790	1,256,936	14,958	710	95,907	148,587	1,548,888
Maximum load	H.P.	25,151	1,079,210	11,499	515	77,074	148,469	1,347,918

3. All Factories, Australia, 1931-32 to 1935-36.—The following table shows the average horse-power used in factories in Australia in each of the five years ended 1935-36. Similar particulars are no longer collected, as mentioned above. For this reason comparisons with 1936-37 are not possible.

FACTORIES.—AVERAGE HORSE-POWER USED, AUSTRALIA.

Year.	Number of Establishments.		Average Horse-power Used.						
	Using Power.	Others.	Steam.	Gas.	Oil.	Electricity.	Water.	Total.	
								Gross.	Less Heat, Light and Power Works.
	No.	No.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
1931-32 ..	20,135	1,522	976,880	41,706	102,106	590,812	140,375	1,851,879	809,703
1932-33 ..	20,826	1,504	877,164	38,970	102,236	608,883	126,465	1,753,718	824,021
1933-34 ..	21,696	1,601	984,702	38,897	100,825	681,553	111,138	1,917,115	884,094
1934-35 ..	22,588	1,623	983,461	36,282	110,984	730,573	134,012	1,995,312	941,600
1935-36 ..	23,197	1,697	1,086,642	35,050	119,341	777,016	128,840	2,146,889	999,595

4. *Classes of Industry. States, 1936-37.*—(i) *Factories other than Central Electric Stations.* The next table shows the rated horse-power of engines ordinarily in use in the various classes of industry in each State during 1936-37:—

FACTORIES.—RATED HORSE-POWER OF ENGINES ORDINARILY IN USE, 1936-37.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
I. Treatment of Non-metalliferous Mine and Quarry Products ..	35,248	23,205	3,293	3,977	3,648	7,722	77,093
II. Bricks, Pottery, Glass, etc. . .	21,103	16,913	2,537	3,241	2,652	623	47,069
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	18,466	16,825	2,003	5,830	5,295	428	48,847
IV. Industrial Metals, Machines, Implements and Conveyances ..	194,715	61,155	22,931	33,611	12,241	55,854	380,507
V. Precious Metals, Jewellery and Plate ..	1,179	2,048	108	240	75	17	3,667
VI. Textiles and Textile Goods ..	17,671	34,099	2,296	2,591	658	2,508	59,823
VII. Skins and Leather ..	7,547	7,292	2,112	184	665	67	17,867
VIII. Clothing ..	7,740	9,883	1,059	828	692	139	20,311
IX. Food, Drink and Tobacco ..	92,695	69,807	85,303	21,067	15,839	6,052	290,823
X. Woodworking and Basketware ..	34,328	24,601	25,642	8,215	9,755	6,313	108,854
XI. Furniture, Bedding, etc. ..	7,115	6,452	2,592	2,381	1,518	686	20,744
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	21,323	26,076	4,616	2,439	2,520	689	57,663
XIII. Rubber ..	20,883	19,517	819	122	83	00	41,190
XIV. Musical Instruments ..	511	63	13	18	22	..	627
XV. Miscellaneous Products ..	3,900	2,916	115	292	104	133	7,520
Total, Classes I to XV. ..	1,111,111	321,882	155,111	58,233	58,527	27,117	1,182,031
XVI. Gas Works ..	7,404	3,234	747	2,505	379	108	14,377
Grand Total ..	491,828	324,086	156,246	87,541	56,206	81,405	1,197,312

(ii) *Central Electric Stations.* Details of the capacity of engines and generators installed in Central Electric Stations in each State are given in the next table for 1936-37.

CENTRAL ELECTRIC STATIONS, STATES, 1936-37.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Engines installed. Rated H.P.	866,970	424,086	215,649	145,505	101,143	99,864	1,853,277
Generators installed—							
Kilowatt capacity—							
Total installed .. K.W.	646,727	322,964	130,050	108,570	70,613	76,286	1,355,210
Effective capacity .. K.W.	534,601	291,854	94,884	107,522	53,644	72,907	1,155,412
Maximum load .. K.W.	435,992	274,951	65,111	100,320	50,886	73,760	1,001,020
Horse-power equivalent (a)							
Total installed .. H.P.	866,970	432,950	174,350	145,544	94,659	102,265	1,816,738
Effective capacity .. H.P.	716,059	391,245	127,197	144,138	71,914	97,735	1,548,888
Maximum load .. H.P.	584,470	368,586	87,285	131,484	68,215	98,878	1,341,918

(a) Estimated.

§ 4. Employment in Factories.

1. *Number Engaged.*—All persons engaged in the manufacturing activities of a factory, including proprietors who work in their own business and "outworkers" (see paragraph 5 (ii) hereinafter) are counted as factory employees, while all those are excluded who are engaged in selling and distributing, such as salesmen, travellers, collectors, carters engaged solely on outward delivery of manufactured goods and retailing storemen. Employment has been classified as follows:—(i) Working proprietors; (ii) managers and overseers; (iii) accountants and clerks; (iv) engine-drivers and firemen; (v) skilled and unskilled workers in the factories, mills, or workshops; (vi) carters and messengers; and (vii) others.

Prior to the year 1928-29 employment in factories was computed by dividing the sum of the number engaged each week by the number of weeks worked. The figures, therefore, represented the average number engaged over the period worked, which, for many factories, was less than a full year. Commencing with the year 1928-29 the figure represents the equivalent average number engaged over a full year of fifty-two weeks. The classification of factories according to the number of persons engaged (see § 2 *ante*), however, is still based on the old method, but for all other purposes the average number engaged over the full year is used.

The following table shows, for each year from 1932-33 to 1936-37 inclusive (a) the average number of persons (including both sexes of all ages) engaged in manufacturing industries in each State; (b) the percentage of the number engaged in each State on the total number engaged in Australia; and (c) the number engaged per ten thousand of the mean population in each State and Australia.

The number of persons engaged in factories in Australia reached its highest point before the depression during the years 1926-27 to 1928-29 when the average for those years was slightly in excess of 450,000. The downward trend in manufacturing operations which began early in 1930 continued with increasing force until the number engaged had fallen to 336,658 in 1931-32, a decline of 25 per cent. on the average already quoted. In 1932-33 employment began to increase and gains were recorded in each year thereafter until a new high level of 523,948 was reached in 1936-37. Stated in relation to population, the number engaged in 1936-37 was 21,000 in excess of the previous maximum in 1926-27.

FACTORIES.—EMPLOYMENT.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
AVERAGE NUMBER ENGAGED DURING FULL YEAR (52 WEEKS).							
1932-33 ..	138,515	144,428	37,388	26,348	14,815	9,233	370,727
1933-34 ..	154,091	156,334	49,083	29,486	16,163	9,782	405,900
1934-35 ..	175,033	169,691	43,048	33,497	17,774	10,555	449,598
1935-36 ..	193,200	183,390	45,128	38,471	20,993	11,589	492,771
1936-37 ..	208,497	191,383	48,216	40,710	22,711	12,431	523,948

PERCENTAGE ON AUSTRALIAN TOTAL.

	%	%	%	%	%	%	%
1932-33 ..	37.36	38.96	10.09	7.10	4.00	2.49	100.00
1933-34 ..	37.96	38.52	9.87	7.26	3.98	2.41	100.00
1934-35 ..	38.93	37.74	9.58	7.45	3.95	2.35	100.00
1935-36 ..	39.21	37.21	9.16	7.81	4.26	2.35	100.00
1936-37 ..	39.79	36.53	9.20	7.77	4.34	2.37	100.00

PER 10,000 OF POPULATION.

1932-33 ..	535	796	397	455	339	405	561
1933-34 ..	590	857	422	506	367	427	610
1934-35 ..	664	924	448	573	401	461	671
1935-36 ..	727	995	464	656	469	503	730
1936-37 ..	778	1,033	490	692	503	535	770

2. Rates of Increase, 1932-33 to 1936-37.—The percentage of increase on the average number of persons engaged in the preceding year is shown below for each State from 1932-33 onwards:—

FACTORIES.—PERSONS ENGAGED.—PERCENTAGES OF ANNUAL INCREASE.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia
	%	%	%	%	%	%	%
1932-33 ..	9.61	12.60	4.44	10.55	10.63	2.59	10.12
1933-34 ..	11.22	8.24	3.45	11.91	9.10	5.95	9.49
1934-35 ..	13.61	8.54	7.40	13.60	9.97	7.90	10.76
1935-36 ..	10.38	8.07	4.83	14.85	18.11	9.80	9.60
1936-37 ..	7.92	4.36	6.84	5.82	8.18	7.27	6.33

3. Persons engaged in Classes of Industry, Australia, 1932-33 to 1936-37.—The table hereunder gives the average number of persons engaged in factories under each industrial group in Australia for the years 1932-33 to 1936-37 inclusive:—

FACTORIES.—PERSONS ENGAGED.—CLASSES, AUSTRALIA.

Class of Industry.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
I. Treatment of Non-metalliferous Mine and Quarry Products ..	4,534	5,507	6,550	7,571	8,736
II. Bricks, Pottery, Glass, etc. ..	6,816	9,020	11,483	13,088	14,202
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	12,655	13,310	14,846	16,217	17,614
IV. Industrial Metals, Machines, Implementations and Conveyances ..	94,598	107,398	125,640	145,481	161,512
V. Precious Metals, Jewellery and Plate ..	2,029	2,371	2,737	3,210	3,484
VI. Textiles and Textile Goods ..	34,974	36,790	38,042	42,031	43,370
VII. Skins and Leather ..	8,865	9,513	9,779	10,440	10,872
VIII. Clothing ..	67,311	72,260	78,074	81,400	82,138
IX. Food, Drink and Tobacco ..	64,670	67,468	70,517	73,888	77,498
X. Woodworking and Basketware ..	17,044	19,927	24,192	27,478	29,311
XI. Furniture, Bedding, etc. ..	8,108	9,562	11,306	13,443	14,707
XII. Paper, Stationery, Printing, Book-binding, etc. ..	29,955	31,937	34,018	35,952	37,309
XIII. Rubber ..	5,822	6,501	7,369	6,797	6,455
XIV. Musical Instruments ..	749	572	460	451	422
XV. Miscellaneous Products ..	4,488	5,122	5,786	6,591	7,370
Total, Classes I. to XV. ..	362,618	397,518	440,709	483,415	515,058
XVI. Heat, Light and Power ..	8,109	8,391	8,799	9,356	8,890
Grand Total ..	370,727	405,909	449,598	492,771	523,948

Although factory employment in 1936-37 was considerably greater than pre-depression levels the gains have been confined to comparatively few classes. The largest class of all—Industrial Metals, etc.—now employs 30,000 more persons than before the depression, Textiles 15,000 more, Food, Drink and Tobacco 7,500, Miscellaneous Products 4,500, Chemicals, etc. 3,500, and Paper, Stationery, etc. 3,500. Five classes reported less employment in 1936-37 including the major classes, Clothing and Woodworking.

4. **Persons Engaged in Classes of Industry, States, 1936-37.**—The following table gives a classification of persons engaged in each State during 1936-37:—

FACTORIES.—PERSONS ENGAGED.—CLASSES, 1936-37.

Class of Industry.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Australia.
I. Treatment of Non-metallic ferous Mine and Quarry Products ..	3,742	2,630	721	549	765	329	8,736
II. Bricks, Pottery, Glass, etc. ..	7,382	4,244	815	930	686	205	14,262
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	7,344	7,342	607	1,442	766	113	17,614
IV. Industrial Metals Machines, Implements and Convey- ances ..	73,464	48,194	11,481	18,147	6,703	3,523	161,512
V. Precious Metals, Jewellery and Plate ..	952	2,102	158	176	75	19	3,482
VI. Textiles and Textile Goods ..	13,892	25,467	892	1,185	398	1,536	43,370
VII. Skins and Leather ..	4,238	4,925	900	401	340	68	10,872
VIII. Clothing ..	30,102	37,953	6,187	4,452	2,898	546	82,138
IX. Food, Drink and Tobacco ..	25,991	25,902	13,577	5,783	3,554	2,691	77,498
X. Woodworking and Basketware ..	9,483	7,289	5,923	1,827	2,871	1,918	29,311
XI. Furniture, Bedding, etc. ..	6,237	4,565	1,670	1,045	849	341	14,707
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	15,712	13,350	3,551	2,189	1,741	766	37,399
XIII. Rubber ..	2,723	2,759	687	145	80	61	6,455
XIV. Musical Instruments ..	249	96	35	12	30	..	422
XV. Miscellaneous Products ..	3,860	2,495	303	309	210	193	7,370
Total, Classes I. to XV.	205,371	189,313	47,507	38,592	21,966	12,309	515,058
XVI. Heat, Light and Power ..	3,126	2,070	709	2,118	745	122	8,890
Grand Total ..	208,497	191,383	48,216	40,710	22,711	12,431	523,948

5. **Persons Engaged According to Nature of Employment.**—(i) *General.* In the following table the average numbers of persons engaged in the States during 1936-37 are classified according to the nature of their employment:—

FACTORIES.—PERSONS ENGAGED.—NATURE OF EMPLOYMENT, 1936-37.

State.	Average Number of Persons Engaged.						Total.
	Working Pro- priators.	Managers and Overseers.	Account- ants and Clerks.	Engine- drivers and Firemen.	Workers, Skilled & Unskilled. (a)	Carters, Messen- gers and Others.	
New South Wales ..	7,092	7,043	13,229	2,702	176,003	2,428	208,497
Victoria ..	8,032	6,402	9,588	1,877	163,275	2,209	191,383
Queensland ..	2,319	1,923	3,210	1,833	37,761	1,170	48,216
South Australia ..	1,468	1,489	2,938	416	33,883	516	40,710
Western Australia ..	1,220	943	1,311	537	18,311	389	22,711
Tasmania ..	624	562	830	264	10,011	140	12,431
Australia ..	20,755	18,362	31,106	7,629	439,244	6,852	523,948

(a) Including Outworkers.

(ii) *Outworkers.* The term "outworker" or "homeworker" has acquired a special meaning in connexion with manufacturing industries, and technically embraces only those to whom work is given out by factory owners to be done in the employees' own homes. Individuals working for themselves are not included. The following table gives

particulars of the average number of outworkers connected with factories in each State during the last five years :—

FACTORIES.—OUTWORKERS.(a)

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
1932-33	131	178	25	18	3	7	362
1933-34	261	164	37	11	2	15	490
1934-35	296	143	11	12	3	10	475
1935-36	235	142	10	6	..	29	422
1936-37	264	176	14	17	3	17	491

(a) In all tables relating to number of hands employed in factories, outworkers are included.

The Factories Acts in each State contain provisions regulating the employment of outworkers. Records of outwork, specifying the names and remuneration of workers, and stating the places where the work is done, must be kept by factory proprietors. Fuller information regarding the operation of the Factories Acts will be found in Official Year Book No. 16, pp. 540 to 566.

§ 5. Sex Distribution in Factories.

1. *Employment of Females.*—In all the States the employment of female labour in factories is regulated by Acts of Parliament. More extended reference to this matter will be found in Official Year Book No. 16, pp. 540 to 566.

2. *Distribution of Persons engaged according to Sex.*—(i) *General.* In New South Wales the ratio of the number of females engaged in factories to the number of males during 1886 was about one to seven; in 1891 one to six; in 1903 it became about one to four; and is now more than one to three. In Victoria the ratio of females to males during the year 1886 was about one to five. Five years later (1891) it was somewhat less, but in 1896 had increased to about one to three, and at present about one third of the persons engaged are females. In the remaining States the ratio was roughly one female engaged to every four males, while that for Australia was three to eight. The employment of women, is however, mainly confined to a few trades.

(ii) *Average Number of Males and Females Engaged, 1932-33 to 1936-37.* The next table shows the average number of males and females engaged in factories in each State during the last five years;—

FACTORIES.—MALES AND FEMALES ENGAGED.

State.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
MALES.					
New South Wales	99,721	111,653	127,114	140,890	152,064
Victoria	91,899	100,959	110,910	121,734	128,457
Queensland	30,009	32,248	34,596	36,411	38,970
South Australia	20,901	23,743	27,271	31,391	33,400
Western Australia	11,748	12,930	14,253	16,911	18,466
Tasmania	7,147	7,716	8,321	9,211	10,055
Australia	261,515	289,249	322,405	356,554	381,412
FEMALES.					
New South Wales	38,794	42,408	47,919	52,304	56,433
Victoria	52,529	55,375	58,781	61,656	62,926
Queensland	7,289	7,835	8,452	8,717	9,246
South Australia	5,447	5,743	6,226	7,080	7,310
Western Australia	3,067	3,233	3,521	4,082	4,245
Tasmania	2,086	2,066	2,234	2,378	2,376
Australia	109,212	116,660	127,133	136,217	142,536

3. **Rate of Variation for each Sex.**—The percentages of annual increase or decrease on the average number of males and females engaged in factories are shown below for the years indicated:—

PERSONS ENGAGED.—MALE AND FEMALE.—PERCENTAGES OF ANNUAL INCREASE.

State.	1931-32— 1932-33.	1932-33— 1933-34.	1933-34— 1934-35.	1934-35— 1935-36.	1935-36— 1936-37.
MALES.					
	%	%	%	%	%
New South Wales ..	9.97	11.97	13.85	10.84	7.93
Victoria.. ..	12.60	9.86	9.86	8.98	5.52
Queensland ..	3.26	7.14	7.28	5.25	6.98
South Australia ..	10.40	13.60	14.86	15.11	6.40
Western Australia ..	11.51	10.06	10.23	18.65	9.20
Tasmania ..	2.11	7.96	7.84	10.70	9.16
Total	9.92	10.61	11.48	10.57	6.97
FEMALES.					
New South Wales ..	8.71	9.32	13.00	9.15	7.89
Victoria.. ..	12.61	5.42	6.15	4.90	2.05
Queensland ..	9.61	7.49	7.87	3.14	6.07
South Australia ..	11.12	5.43	8.41	13.72	3.25
Western Australia ..	7.35	5.41	8.90	15.93	3.99
Tasmania ..	4.25	— 0.96	8.13	6.45	— 0.08
Total	10.60	6.82	8.98	7.15	4.64

NOTE.—The minus sign (—) indicates decrease.

4. **Masculinity of Persons Engaged in Factories.**—The extent to which females are engaged in the factories of Australia may perhaps be more clearly shown by giving the masculinity of persons engaged for each State for a series of years. The following table furnishes particulars for the years 1932-33 to 1936-37:—

MASCULINITY(a) OF PERSONS ENGAGED IN FACTORIES.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
1932-33	264	175	413	384	383	343	239
1933-34	263	182	412	413	400	373	248
1934-35	275	189	409	438	405	372	254
1935-36	269	197	418	443	414	387	262
1936-37	269	204	421	457	435	423	268

(a) Number of males per 100 females.

For a number of years prior to 1926-27 there were on the average 100 females engaged in factories for every 300 males, but in that year, the proportion of females began to rise with increasing activity in the clothing and textile industries in which the number of females to males is relatively high. As these trades were not as seriously affected by the depression as the heavier industries the proportion continued to rise until in 1932-33 there were only 239 males engaged to every 100 females. Since that year the proportion has declined to 268 males in 1936-37.

5. **Employment of Females in Particular Industries.**—The greater number of females in manufacturing industries is engaged in four classes, viz.:—VI., Textiles; VIII., Clothing; IX., Food and Drink; and XII., Paper, Stationery, etc. In 1936-37 these industries accounted for 82.47 per cent. of all females in factories. In two classes only did the number of females exceed the number of males, viz., in Class VI., Textiles where

there were 145 females to every 100 males and in Class VIII., Clothing, with 282 females per 100 males. The following tables show the average number of males and females engaged in each of these classes in 1936-37 :—

MALES AND FEMALES ENGAGED IN PARTICULAR INDUSTRIES, 1936-37.

Class.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus- tralia.
AVERAGE NUMBER ENGAGED—MALES.							
VI. Textiles and Textile Goods ..	5,410	10,420	398	761	139	589	17,717
VIII. Clothing ..	7,925	10,313	1,367	980	694	201	21,480
IX. Food and Drink ..	16,917	18,851	12,037	4,713	2,858	1,970	57,355
XII. Paper, Stationery, etc. ..	10,783	9,375	2,600	1,558	1,294	602	26,212
All Other Classes ..	111,020	70,198	22,568	35,388	13,481	6,884	258,048
Total ..	152,064	128,457	38,970	33,400	18,466	10,055	381,412
AVERAGE NUMBER ENGAGED—FEMALES.							
VI. Textiles and Textile Goods ..	8,482	15,047	494	424	259	947	25,653
VIII. Clothing ..	22,177	27,640	4,820	3,472	2,201	345	60,688
IX. Food and Drink ..	9,074	7,051	1,540	1,070	696	712	20,143
XII. Paper, Stationery, etc. ..	4,929	3,975	951	631	447	164	11,097
All Other Classes ..	11,771	9,213	1,441	1,713	639	208	24,985
Total ..	56,433	62,926	9,246	7,310	4,245	2,376	142,536

The employment of females in the several industries of Class VIII., Clothing, which is the most important group, and the relation of their number to that of the males so engaged are shown in the following table :—

FEMALES ENGAGED IN EACH INDUSTRY IN CLASS VIII., 1936-37.

Industry.	New South Wales.			Victoria.			Other States.		
	Males.	Females.	Femi- ninity. (a)	Males.	Females.	Femi- ninity. (a)	Males.	Females.	Femi- ninity. (a)
Tailoring and Slop									
Clothing ..	2,160	9,245	428	1,933	6,220	322	1,292	4,696	363
Waterproof and Oil- skin Clothing ..	8	22	275	64	173	270	8	12	150
Dressmaking ..	35	1,476	4,217	572	7,467	1,305	61	2,272	3,725
Millinery ..	134	1,403	3,047	114	1,273	3,117	40	788	1,970
Shirts, Collars and Underclothing ..	335	4,030	1,203	449	4,469	995	144	1,689	1,173
Stays and Corsets	40	553	1,383	164	915	558	6	62	1,033
Handkerchiefs, Ties and Scarves ..	112	945	844	50	349	1,098	5	11	220
Hats and Caps ..	649	976	150	661	742	112	31	132	426
Gloves ..	10	34	340	(b)	(b)	(b)	..	..	..
Boots and Shoes ..	2,592	2,700	104	4,610	4,752	103	1,023	820	80
Boot Repairing (in- cluding Bespoke Work) ..	1,047	31	3	675	15	2	406	22	5
Boot Accessories ..	159	103	65	497	222	45	(b)	(b)	(b)
Umbrellas and Walk- ing Sticks ..	32	72	225	27	34	126	11	17	155
Dyeworks and Clean- ing (including Re- novating and Repairing) ..	553	395	71	430	476	111	211	318	151
Other ..	59	192	325	67	333	497	4	2	50
Total ..	7,925	22,177	280	10,313	27,640	268	3,242	10,841	334

(a) Number of females per 100 males.

(b) Included with Other.

§ 6. Child Labour in Factories.

1. Conditions of Child Labour.—The employment of young persons in factories in the States is regulated by Acts of Parliament, as is the case with the employment of female labour. Reference to the legislation regarding the employment of child labour in factories will be found in Official Year Book No. 16, pp. 540 to 566. The object of

the restrictions imposed is to assure amongst other things that a proper period shall be devoted to primary education, and that the early years of toil shall not exhaust the worker before the attainment of full growth.

2. Average Number of Children Engaged, 1932-33 to 1936-37.—In the returns for the various States, the term "child" denotes any person under sixteen years of age. The following table shows the average number of children of each sex employed in manufacturing industries in the years 1932-33 to 1936-37:—

CHILDREN ENGAGED IN FACTORIES.

State.	1932-33. (a)	1933-34. (a)	1934-35. (a)	1935-36. (a)	1936-37. (b)
MALES.					
New South Wales ..	2,366	3,040	3,990	4,887	5,888
Victoria ..	3,441	4,248	5,194	6,118	6,213
Queensland ..	903	1,135	1,146	1,543	1,680
South Australia ..	611	799	1,025	1,352	1,422
Western Australia ..	351	427	574	777	786
Tasmania ..	263	219	255	330	364
Australia ..	7,935	9,868	12,184	15,007	16,353
FEMALES.					
New South Wales ..	3,561	4,422	5,571	6,485	7,539
Victoria ..	4,643	5,634	6,015	6,002	5,298
Queensland ..	849	981	1,048	1,281	1,224
South Australia ..	523	644	738	876	988
Western Australia ..	202	235	426	473	432
Tasmania ..	209	202	294	310	289
Australia ..	9,987	12,118	14,092	15,427	15,770
TOTAL.					
New South Wales ..	5,927	7,462	9,561	11,372	13,427
Victoria ..	8,084	9,882	11,209	12,120	11,511
Queensland ..	1,752	2,116	2,194	2,824	2,904
South Australia ..	1,134	1,443	1,763	2,228	2,410
Western Australia ..	553	662	1,000	1,250	1,218
Tasmania ..	472	421	549	640	653
Australia ..	17,922	21,986	26,276	30,434	32,123

(a) Average during year.

(b) As at June, 1937.

3. Percentage of Children on Total Number of Persons Engaged.—Juvenile employment in factories reached its maximum in 1936-37 when the numbers were: Males 16,353 and females 15,770, compared with 15,007 males and 15,427 females in 1935-36, the previous highest points. The increases were general in most of the industries employing child labour, the most notable advance being made by males in Class IV.—Industrial Metals, etc.

PERCENTAGE OF CHILDREN ON TOTAL NUMBER OF PERSONS ENGAGED.

State.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
	%	%	%	%	%
New South Wales ..	4.28	4.84	5.46	5.89	6.44
Victoria ..	5.60	6.32	6.61	6.61	6.01
Queensland ..	4.69	5.28	5.10	6.26	6.02
South Australia ..	4.30	4.89	5.26	5.79	5.92
Western Australia ..	3.73	4.10	5.63	5.95	5.36
Tasmania ..	5.11	4.30	5.20	5.52	5.25
Australia ..	4.83	5.42	5.84	6.18	6.13

4. **Industries Employing Child Labour.**—The employment of children is practically confined to a limited number of industries, the most important of which are specified in the next table, which shows the number engaged in June, 1937.

CHILDREN EMPLOYED.—VARIOUS INDUSTRIES, JUNE, 1937.

Class.	Industry.	N.S.W.		Victoria.		Q'land.		S. Aust.		W.Aust.		Tas.		Australia.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
II.	Bricks and Tiles, Fire-bricks and Fireclay Goods	116	..	23	9	24	..	25	..	11	..	6	..	205	9
	Glass Bottles	37	..	34	5	1	..	8	..	..	..	..	..	80	5
III.	Chemicals, Drugs and Medicines	53	123	21	55	3	14	14	23	7	3	1	2	99	220
IV.	Smelting, Converting Refining and Rolling of Iron and Steel ..	298	11	313	25	..	..	125	14	..	..	..	..	736	50
"	Engineering (not Marine or Electrical) ..	280	13	420	20	148	4	136	17	63	..	3	..	1050	54
"	Electrical Installations, Cables and Apparatus ..	252	95	263	46	8	..	36	13	9	..	2	..	570	154
"	Motor Vehicles and Cycles (ii) Repairs ..	252	22	220	10	60	6	108	5	58	2	36	3	734	48
"	Motor Bodies	34	..	113	5	19	..	104	9	14	..	..	..	284	14
"	Brass and Copper	125	28	145	4	27	1	24	3	14	..	3	..	338	36
"	Galvanized Ironworking and Tinsmithing ..	272	75	270	52	36	7	57	..	72	..	3	..	710	134
"	Wireless Apparatus ..	362	132	262	32	10	..	..	..	1	..	..	..	635	164
VI.	Cotton	66	152	50	118	..	..	..	..	..	..	..	..	116	270
"	Wool, Worsted and Shoddy	186	519	421	437	17	43	38	24	..	6	54	107	716	1136
"	Hosiery and Other Knitted Goods ..	67	594	200	875	3	11	1	14	..	6	2	13	273	1513
VII.	Rope and Cordage ..	34	26	103	22	7	..	26	..	7	..	..	..	177	48
"	Tanning, Currying and Leather Dressing ..	60	1	107	1	26	..	1	..	6	..	..	..	200	2
"	Bags, Trunks and Other Leather Goods ..	72	93	40	55	14	14	4	36	4	2	..	..	154	200
VIII.	Tailoring and Slop Clothing	121	1124	76	408	41	263	9	236	10	46	2	22	259	2099
"	Dressmaking	3	223	27	649	2	122	..	164	1	119	..	8	33	1285
"	Millinery	13	200	4	116	4	39	..	28	..	18	..	..	21	401
"	Shirts, Collars and Underclothing ..	22	658	28	338	7	125	1	92	1	30	..	..	50	1252
"	Stays and Corsets ..	1	70	16	85	..	5	..	..	..	..	..	..	17	100
"	Hats and Caps	33	78	22	37	..	2	1	5	1	18	..	..	57	140
"	Boots and Shoes ..	219	478	154	429	19	75	22	30	3	13	4	2	455	1036
IX.	Bakeries (including Cakes and Pastry) ..	57	19	89	22	14	35	25	3	10	..	72	104	267	183
"	Biscuits	108	371	111	86	2	16	11	28	10	24	..	..	242	522
"	Sugar Confectionery (including Chocolates) ..	72	484	41	133	18	75	11	35	1	17	..	..	140	741
"	Condiments, Coffee and Spices	16	77	13	41	5	18	3	3	25	1	..	..	91	140
XI.	Billiard Tables, Cabinet and Furniture making and Upholstery ..	209	45	257	13	73	11	70	2	58	1	10	2	692	74
XII.	Manufactured Stationery	58	146	23	79	2	4	7	21	1	8	..	..	91	258
"	Cardboard Boxes, Cartons, etc.	57	255	29	117	1	19	2	23	2	17	..	..	91	431
"	Paper Bags	3	26	11	31	..	17	5	0	..	..	..	..	19	80
"	Papermaking	14	7	10	..	..	..	..	..	..	..	..	..	24	7
"	Newspapers (including Weekly Publications) ..	129	13	34	3	63	8	11	1	18	8	4	1	262	34
"	General Printing and Bookbinding (not including Government) ..	264	230	274	190	61	56	32	30	10	19	13	6	600	531

5. **Apprenticeship.**—In all the States, Acts are in force for the regulation of the age at which children may be employed in gainful occupations. Legislative provision is also made for the regulation of apprenticeship under the various State Factories Acts or Arbitration Acts. These Acts, while laying down general principles, leave to the wages tribunals the actual determination of the conditions under which apprentices may be employed.

§ 7. Salaries and Wages Paid and Value of Production.

NOTE.—In all tables relating to Salaries and Wages paid in Factories the amounts given are exclusive of sums drawn by working proprietors.

1. **General.**—The importance of the manufacturing industries of Australia is indicated by the fact that the total value of the output for 1936-37 was £451,829,278, of which amount the sum of £260,578,903 represented the value of the materials used, including containers, etc., tools replaced and repairs to plant and buildings, and £13,565,730 the value of the power, fuel and light used. The difference between the sum of the last two amounts and the value of the output, viz., £177,684,645 represents the value of production as defined by the Conference of Statisticians at Sydney in 1925, i.e., "The value of consumable commodities produced during the year, deducting, so far as possible, the value of goods consumed in process of production." The total amount of salaries and wages paid in factories in 1936-37 was £90,123,132. This figure which is exclusive of amounts drawn by working proprietors shows an increase of £8,024,844 or 9.8 per cent., as compared with the total for the previous year.

2. **Salaries and Wages Paid.**—(i) *Total Amount, 1936-37.* The total amount of salaries and wages paid in the year 1936-37 in various classes of factories in each State is shown in the following table:—

SALARIES AND WAGES PAID IN FACTORIES, 1936-37.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metaliferous Mine and Quarry Products ..	820,843	515,988	150,787	106,406	145,844	68,025	1,807,893
II. Bricks, Pottery, Glass etc. ..	1,390,937	799,261	149,158	164,274	130,564	35,512	2,669,706
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	1,363,203	1,378,604	110,839	257,252	166,283	18,825	3,295,006
IV. Industrial Metals, Machines, Implements and Conveyances ..	14,795,139	9,057,037	2,352,948	3,602,666	1,338,447	745,408	31,891,645
V. Precious Metals, Jewellery and Plate ..	151,077	320,051	23,163	22,477	12,031	2,915	531,714
VI. Textiles and Textile Goods ..	1,805,303	3,148,376	113,254	149,349	50,540	190,994	5,457,816
VII. Skins and Leather ..	709,746	791,774	152,003	51,169	50,355	10,590	1,765,637
VIII. Clothing ..	3,277,733	4,349,710	595,097	398,599	293,746	58,833	8,973,718
IX. Food, Drink and Tobacco ..	4,709,961	4,845,639	3,176,813	988,817	681,933	407,715	14,810,878
X. Woodworking and Basketware ..	1,661,739	1,289,419	980,480	292,251	582,265	268,837	5,074,991
XI. Furniture, Bedding, etc. ..	1,047,031	628,651	283,090	151,624	133,054	46,434	2,289,884
XII. Paper, Stationery, Printing, Book-binding, etc. ..	2,982,315	2,467,058	671,422	405,828	343,290	160,528	7,030,441
XIII. Rubber ..	551,855	521,806	88,275	15,219	9,292	6,349	1,192,886
XIV. Musical Instruments ..	49,019	16,382	7,414	1,385	6,495	..	80,695
XV. Miscellaneous Products ..	519,135	351,969	37,863	38,328	23,319	24,682	995,296
Total, Classes I. to XV.	35,835,036	30,481,815	8,892,606	6,645,644	3,967,458	2,045,647	87,868,206
XVI. Heat, Light and Power ..	807,408	505,080	196,031	526,994	190,275	29,138	2,254,926
Grand Total ..	36,642,444	30,986,895	9,088,637	7,172,638	4,157,733	2,074,785	90,123,132

(ii) *Totals and Averages, 1932-33 to 1936-37.* The following statement shows the total amount of salaries and wages paid, and the average amount paid per employee in each State, for the years 1932-33 to 1936-37. The average wage paid is not comparable with that shown in similar tables in Official Year Books issued prior to No 23, 1930.

on account of the change in the method of computing the average number of hands employed as explained earlier. The figures are exclusive of working proprietors and of the amounts drawn by them :—

SALARIES AND WAGES PAID IN FACTORIES.—TOTAL AND AVERAGE PER ANNUM PER EMPLOYEE.

Year.	Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
		£	£	£	£	£	£	£
1932-33	Total amount paid ..	23,782,848	21,218,271	6,321,021	4,136,857	2,541,428	1,416,011	59,416,430
	Average per employee ..	179.49	154.50	176.82	165.24	182.14	162.85	168.10
1933-34	Total amount paid ..	25,748,547	22,851,649	6,995,340	4,615,081	2,752,540	1,481,503	64,444,660
	Average per employee ..	174.23	153.62	182.82	163.98	181.03	160.58	166.36
1934-35	Total amount paid ..	29,514,013	25,273,014	7,889,555	5,435,531	3,211,259	1,621,227	72,244,549
	Average per employee ..	175.22	156.33	192.38	169.22	185.05	160.36	169.34
1935-36	Total amount paid ..	33,314,531	28,151,025	8,304,000	6,375,354	3,705,100	1,850,000	82,700,000
	Average per employee ..	178.66	162.28	194.66	172.21	187.09	168.33	173.65
1936-37	Total amount paid ..	36,612,141	30,986,895	9,088,637	7,172,638	4,157,733	2,074,785	90,123,132
	Average per employee ..	181.93	169.00	198.02	182.78	193.46	175.72	179.10

In comparing the figures in the preceding table, regard should be paid to the nature of certain industries which are carried on to a greater extent in some States than in others. In Victoria, for instance, there is a large number of hands employed in Class VIII., comprising a heavy percentage of women and children. The highest average wages per employee in 1936-37 were paid in Queensland, Western Australia and South Australia in that order.

The average rate of salaries and wages reached its maximum in 1927-28 when it amounted to £212.12. After that year there was an almost continuous decline to 1933-34 when the average rate dropped to £166.36. The figure has risen slightly in each of the last three years.

(iii) *Earnings of Males and Females, 1936-37.* The following table shows the approximate amount paid in salaries and wages to males and females in each class of industry in each State during the year 1936-37 :—

SALARIES AND WAGES.—MALE AND FEMALE FACTORY EMPLOYEES, 1936-37.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
MALES.							
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	814,775	509,533	148,478	105,899	143,979	67,463	1,790,127
II. Bricks, Pottery, Glass, etc. ..	1,364,544	777,303	145,072	101,871	129,167	35,221	2,613,178
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	1,129,527	1,150,441	96,951	236,049	157,612	17,877	2,788,457
IV. Industrial Metals, Machines, Implements and Conveyances ..	14,387,984	8,795,045	2,316,594	3,525,495	1,318,703	735,703	31,079,614
V. Precious Metals, Jewellery and Plate ..	138,671	292,424	21,875	21,644	11,666	2,915	489,195
VI. Textiles and Textile Goods ..	1,030,779	1,811,656	72,287	118,761	29,073	111,681	3,174,237
VII. Skins and Leather ..	931,007	691,508	115,190	33,050	1,475	10,097	1,555,023
VIII. Clothing ..	1,310,607	1,684,618	215,050	125,433	99,773	29,008	3,494,489
IX. Food, Drink and Tobacco ..	3,794,415	4,106,089	3,039,552	900,102	618,536	347,034	12,805,728
X. Woodworking and Basketware ..	1,630,331	1,268,119	962,283	286,361	580,301	265,600	4,093,154
XI. Furniture, Bedding etc. ..	933,803	542,909	264,577	142,688	122,505	45,168	2,051,650
XII. Paper, Stationery, Printing, Book-binding, etc. ..	2,528,436	2,081,789	573,700	352,858	299,624	144,859	5,981,266
XIII. Rubber ..	463,481	445,119	59,847	14,007	9,100	6,078	997,641
XIV. Musical Instruments ..	43,024	16,226	7,414	1,385	6,495	..	74,544
XV. Miscellaneous Products ..	413,177	287,307	34,013	32,464	18,797	24,066	800,824
Total, Classes I. to XV.	30,647,624	24,460,086	8,100,183	6,060,073	3,587,332	1,812,959	74,098,757
XVI. Heat, Light and Power ..	803,075	503,801	106,031	510,152	189,235	29,060	2,231,351
Grand Total ..	31,450,699	24,963,887	8,206,214	6,570,225	3,776,567	1,842,019	76,330,108

SALARIES AND WAGES.—MALE AND FEMALE FACTORY EMPLOYEES,
1936-37—continued.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
FEMALES.							
I. Treatment of Non-metalliferous Mine and Quarry Products ..	6,068	6,455	2,309	507	1,865	562	17,766
II. Bricks, Pottery, Glass, etc. ..	26,393	21,958	4,086	2,403	1,397	291	56,528
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	233,676	228,163	13,888	21,203	8,671	948	506,549
IV. Industrial Metals, Machines, Implements and Conveyances ..	407,155	261,992	36,354	77,171	19,744	9,615	812,031
V. Precious Metals, Jewellery and Plate ..	12,406	27,627	1,288	833	365	..	42,519
VI. Textiles and Textile Goods ..	774,524	1,336,720	40,967	30,588	21,467	79,313	2,283,579
VII. Skins and Leather ..	75,679	100,266	9,111	19,113	79,950	493	210,014
VIII. Clothing ..	1,937,126	2,665,092	380,047	273,166	193,973	29,825	5,479,229
IX. Food, Drink and Tobacco ..	915,546	739,550	137,461	88,715	63,397	60,681	2,005,150
X. Woodworking and Basketware ..	31,408	21,300	18,197	5,890	1,874	3,138	81,807
XI. Furniture, Bedding, etc. ..	113,228	85,742	18,513	8,936	10,549	1,266	238,234
XII. Paper, Stationery, Printing, Book-binding, etc. ..	453,879	385,269	97,722	52,970	43,666	15,669	1,049,175
XIII. Rubber ..	88,371	76,777	28,428	1,212	186	271	195,245
XIV. Musical Instruments ..	5,995	156	..	..	..	..	6,151
XV. Miscellaneous Products ..	105,958	64,662	3,850	5,864	4,522	616	185,472
Total, Classes I. to XV ..	5,187,412	6,021,729	792,423	585,571	379,620	202,688	13,160,449
XVI. Heat, Light and Power ..	4,333	1,270	..	16,842	1,043	78	23,575
Total ..	5,191,745	6,023,008	792,423	602,413	380,669	202,766	13,193,024

(iv) *Total and Average Earnings of Males and Females, 1932-33 to 1936-37.*
Particulars for the last five years are given in the table hereunder:—

SALARIES AND WAGES.—MALE AND FEMALE FACTORY EMPLOYEES.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
MALES.							
1932-33. Amount paid .. £	20,009,450	16,597,017	5,730,120	3,760,236	2,270,003	1,283,005	40,665,833
Per cent. on total ..	84.51	78.19	90.75	80.66	80.36	88.49	83.59
Average per employee £	213.72	191.28	201.02	188.12	208.08	180.78	202.51
1933-34. Amount paid .. £	21,885,356	18,000,598	6,353,917	4,170,047	2,475,098	1,315,417	54,210,033
Per cent. on total ..	85.00	78.81	90.83	90.36	80.48	88.79	84.12
Average per employee £	206.98	191.45	208.03	185.58	206.27	182.05	199.32
1934-35. Amount paid .. £	25,215,937	20,036,314	7,181,143	4,937,285	3,806,176	1,199,620	61,016,075
Per cent. on total ..	85.44	79.27	91.06	90.87	90.20	89.28	84.60
Average per employee £	208.57	193.31	219.93	219.22	210.66	183.68	202.48
1935-36. Amount paid .. £	28,576,202	22,755,111	7,654,082	5,810,399	3,353,526	1,652,851	69,802,171
Per cent. on total ..	85.78	79.97	91.18	91.14	90.54	89.18	85.02
Average per employee £	212.35	198.85	221.90	193.56	212.70	190.86	206.55
1936-37. Amount paid .. £	31,450,699	24,963,887	8,296,214	6,570,228	3,777,064	1,872,019	76,930,111
Per cent. on total ..	85.83	80.56	91.28	91.60	90.84	90.23	85.36
Average per employee £	216.20	205.93	225.78	205.31	218.17	198.05	212.44

SALARIES AND WAGES.—MALE AND FEMALE FACTORY EMPLOYEES—
continued.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia
FEMALES.							
1932-33. Amount paid ..£	3,683,392	4,621,254	584,895	427,621	270,525	162,916	9,750,603
Per cent. on total ..	15.49	21.81	9.25	10.34	10.64	11.51	16.41
Average per employee £	95.78	89.07	81.08	79.62	89.05	79.24	90.27
1933-34. Amount paid ..	3,863,191	4,842,051	641,423	445,034	276,842	166,086	10,234,627
Per cent. on total ..	15.00	21.19	9.17	9.64	10.06	11.21	15.88
Average per employee £	91.88	88.54	82.77	78.43	86.43	81.41	86.69
1934-35. Amount paid ..£	4,298,076	5,238,700	705,092	496,246	304,763	171,597	11,214,474
Per cent. on total ..	14.56	20.73	8.94	9.13	9.80	10.72	15.40
Average per employee £	90.40	90.27	84.51	80.64	87.30	77.93	89.17
1935-36. Amount paid ..£	4,738,332	5,700,917	740,827	564,955	350,469	200,617	12,296,117
Per cent. on total ..	14.22	20.03	8.82	8.86	9.46	10.82	14.98
Average per employee £	91.30	93.58	85.80	80.70	86.84	85.33	91.19
1936-37. Amount paid ..£	5,191,745	6,023,008	792,423	602,413	380,660	202,766	13,193,024
Per cent. on total ..	14.17	19.44	8.72	8.40	9.16	9.77	14.64
Average per employee £	92.71	96.95	86.57	83.21	90.59	86.10	93.52

(v) *Managers, Overseers and Other Employees.* A further analysis of salaries and wages paid is given in the following table, the amounts paid to managers, overseers, etc., being differentiated from those paid to other employees. As previously mentioned, amounts drawn by working proprietors are excluded in all cases:—

SALARIES AND WAGES.—MANAGERS, OVERSEERS AND OTHER FACTORY
EMPLOYEES, AUSTRALIA, 1936-37.

Class of Industry.	Managers, Overseers, Accountants and Clerks.		All Other Employees.		All Employees.		
	Males.	Females.	Males.	Females.	Males.	Females.	Total.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliciferous Mine and Quarry Products ..	259,876	17,106	1,530,251	660	1,790,127	17,766	1,807,893
II. Bricks, Pottery, Glass, etc. ..	291,578	29,038	2,321,600	27,490	2,613,178	56,528	2,669,706
III. Chemicals Dyes, Explosives, Paint, Oils and Grease ..	687,604	126,579	2,100,853	379,970	2,788,457	506,549	3,295,006
IV. Industrial Metals, Machines, Implements and Conveyances ..	3,912,401	423,789	27,167,213	388,242	31,079,614	812,031	31,891,645
V. Precious Metals, Jewellery and Plate ..	48,830	12,736	440,365	29,783	489,195	42,519	531,714
VI. Textiles and Textile Goods ..	616,446	139,667	2,557,791	2,143,912	3,174,237	2,283,579	5,457,816
VII. Skins and Leather ..	200,860	1,000	1,000	1,000	1,000	1,000	1,000
VIII. Clothing ..	576,144	323,251	2,978,345	5,155,978	3,494,489	5,170,220	8,664,709
IX. Food, Drink and Tobacco ..	2,553,525	379,499	10,252,203	1,625,651	12,805,728	1,625,651	14,431,379
X. Woodworking and Basketware ..	543,700	62,386	4,449,484	19,421	4,993,184	81,807	5,074,991
XI. Furniture, Bedding etc. ..	183,859	46,652	1,867,791	191,582	2,051,650	238,234	2,289,884
XII. Paper, Stationery, Printing, Book-binding, etc. ..	1,053,705	250,090	4,927,561	799,085	5,981,266	1,049,175	7,030,441
XIII. Rubber ..	221,052	37,041	273,683	1,100	274,783	37,041	311,824
XIV. Musical Instruments ..	10,647	2,675	63,897	3,476	74,544	6,151	80,695
XV. Miscellaneous Products ..	151,711	34,001	658,113	151,471	809,824	185,472	995,296
Total, Classes I. to XV.	11,252,817	1,900,100	63,415,910	11,261,571	74,677,481	13,109,119	87,786,599
XVI. Heat, Light and Power ..	476,532	21,080	1,754,819	2,495	2,231,351	23,575	2,254,926
Grand Total ..	11,729,379	1,925,655	65,200,729	11,264,066	76,930,108	13,132,694	90,062,802
Average paid per employee	340.56	128.15	108.98	89.39	212.44	93.52	179.10

3. **Power, Fuel and Light Used.**—(i) *Total Value, 1936-37.* The expenditure by factories on power, fuel and light is of considerable importance: in 1936-37 it amounted to £13,565,730, an increase of £280,435 as compared with the previous year. The following table shows the value of power, fuel and light used in the different classes of industry in 1936-37:—

VALUE OF POWER, FUEL AND LIGHT USED(a) IN FACTORIES, 1936-37.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	280,539	212,470	55,525	49,150	68,431	72,636	738,751
II. Bricks, Pottery, Glass, etc. ..	404,108	263,522	40,330	55,368	58,596	13,612	835,736
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	199,688	221,429	14,432	43,951	34,103	2,566	516,169
IV. Industrial Metals, Machines, Implements and Conveyances ..	2,798,168	551,685	191,121	229,284	82,415	214,403	4,067,076
V. Precious Metals, Jewellery and Plate ..	8,691	15,588	876	1,807	523	134	27,619
VI. Textiles and Textile Goods ..	178,308	315,908	9,804	22,681	6,752	19,782	553,235
VII. Skins and Leather ..	64,328	74,028	17,779	15,571	6,166	733	164,605
VIII. Clothing ..	95,741	130,194	15,354	13,295	8,277	1,385	264,246
IX. Food, Drink and Tobacco ..	798,904	767,636	472,102	187,830	135,243	52,623	2,414,338
X. Woodworking and Basketware ..	83,454	80,966	53,697	15,013	30,323	16,445	279,898
XI. Furniture, Bedding, etc. ..	32,661	27,637	9,487	8,434	4,164	1,681	84,064
XII. Paper, Stationery, Printing, Book-binding, etc. ..	138,662	197,341	31,090	16,771	13,101	1,725	409,781
XIII. Rubber ..	85,536	119,560	8,872	2,276	1,396	618	218,258
XIV. Musical Instruments ..	3,423	28	70	24	118	..	3,923
XV. Miscellaneous Products ..	29,661	23,810	1,091	1,812	910	728	58,012
Total, Classes I. to XV.	5,201,872	3,002,057	921,536	949,270	453,008	402,071	10,032,714
XVI. Heat, Light and Power ..	1,263,070	675,431	303,419	207,538	483,558	..	2,933,016
Grand Total ..	6,464,942	3,677,488	1,225,255	856,808	939,166	402,071	13,565,730

(a) Including lubricants and water.

(ii) *Values of Items, 1936-37.* The following table shows the values of the various items of power, fuel and light used in factories in each State during the year 1936-37:—

VALUE OF POWER, FUEL AND LIGHT USED IN FACTORIES, 1936-37.

Particulars.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
	£	£	£	£	£	£	£
Coal ..	1,991,000	1,303,395	560,327	273,811	278,328	92,900	4,499,761
Coke ..	1,260,576	254,336	30,338	34,299	29,128	2,900	1,611,577
Wood ..	110,344	178,549	124,448	63,203	162,318	29,793	668,655
Charcoal ..	(a) 68,726	90,453	36,310	27,623	7,268	154	230,534
Fuel Oil ..	417,570	234,350	79,086	72,322	185,675	10,754	999,757
Gas ..	466,977	103,814	24,609	22,121	12,990	2,408	632,919
Electricity ..	1,669,492	1,137,281	228,344	290,541	176,026	240,868	3,742,552
Water and Lubricating Oil ..	480,000	375,349	111,293	72,888	7,133	5,091	1,170,973
Total ..	6,464,942	3,677,488	1,225,255	856,808	939,166	402,071	13,565,730

(a) Including Other.

(iii) *Quantities, 1936-37.* The following table shows the quantities of certain items of power, fuel and light used in factories in each State during the year 1936-37:—

QUANTITY OF POWER, FUEL AND LIGHT USED IN FACTORIES, 1936-37.

Particulars.	Unit.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
Coal ..	Ton	2,312,983	3,018,248	412,317	211,501	227,307	75,844	6,258,200
Coke ..	Ton	1,138,847	171,664	20,450	19,517	12,538	1,389	1,364,405
Wood ..	Ton	139,888	397,853	222,485	88,247	284,763	74,105	1,207,341
Fuel Oil ..	Gal.	20,201,089	12,209,281	2,702,824	3,134,095	7,458,833	332,074	46,039,000

(iv) *Total Value, 1932-33 to 1936-37.* The next table gives the sums expended on power, fuel and light during the last five years:—

VALUE OF POWER, FUEL AND LIGHT USED IN FACTORIES.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
1932-33 ..	4,791,381	2,923,230	905,893	764,930	598,088	462,650	10,446,172
1933-34 ..	5,239,416	3,069,749	971,680	827,040	641,324	465,663	11,214,881
1934-35 ..	5,939,307	3,323,592	1,051,171	866,566	700,275	487,892	12,358,207
1935-36 ..	6,273,485	3,505,321	1,080,525	972,636	852,327	592,001	13,276,295
1936-37 ..	6,404,942	3,677,488	1,225,255	856,808	939,166	402,071	13,595,730

4. *Value of Materials Used.*—(i) *Total Amount, 1936-37.* The value of materials used (which includes the value of containers, packing, etc., the cost of tools replaced and repairs to plant) in factories in Australia in 1936-37 was £260,578,903, representing 57.67 per cent. of the value of the final output. (See par. 5.) The table hereunder shows the value of the materials used in various classes of industry in each State:—

VALUE OF MATERIALS USED IN FACTORIES, 1936-37.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metallic Mineral and Quarry Products ..	2,045,798	953,093	310,487	123,623	217,599	131,168	3,781,778
II. Bricks, Pottery, Glass, etc. ..	861,831	406,927	62,273	158,572	72,035	25,515	1,587,133
III. Chemicals, Dyes, Explosives, Paints, Oils and Grease ..	7,236,656	4,918,373	545,582	1,214,066	1,018,239	100,605	15,033,521
IV. Industrial Metals, Machines, Implements and Conveyances ..	39,325,668	12,241,092	3,432,888	9,654,801	1,535,362	1,766,572	67,957,383
V. Precious Metals, Jewellery and Plate ..	142,478	399,615	10,667	18,980	6,672	599	579,011
VI. Textiles and Textile Goods ..	5,069,024	8,170,755	499,765	864,391	140,738	517,833	15,262,506
VII. Skins and Leather ..	3,358,071	2,080,191	1,565,381	114,000	172,218	27,840	8,299,081
VIII. Clothing ..	5,888,236	8,841,460	1,043,589	483,218	407,425	67,366	16,731,294
IX. Food, Drink and Tobacco ..	31,169,502	30,089,015	23,526,646	6,860,274	4,232,483	1,900,799	97,787,716
X. Woodworking and Basketware ..	4,424,894	2,799,543	2,209,357	924,295	848,669	441,811	11,651,569
XI. Furniture, Bedding, etc. ..	2,103,954	1,400,381	444,614	278,438	245,663	51,583	4,524,633
XII. Paper, Stationery, Printing, Book-binding, etc. ..	4,195,354	3,507,901	597,412	441,357	322,868	111,561	9,179,453
XIII. Rubber ..	1,880,017	2,002,381	119,582	55,136	19,319	10,220	4,110,046
XIV. Musical Instruments ..	39,252	8,103	2,335	3,402	187		53,579
XV. Miscellaneous Products ..	980,780	757,077	35,005	91,771	31,060	23,087	1,909,870
Total, Classes I. to XV. ..	108,790,681	70,514,010	34,435,073	21,251,591	9,721,008	5,179,681	258,303,777
XVI. Heat, Light and Power ..	883,970	757,513	176,558	148,214	154,851	64,010	2,185,116
Grand Total ..	109,593,494	80,302,423	34,612,231	21,399,805	9,427,259	5,243,691	260,578,903

(ii) *Total Amount, 1932-33 to 1936-37.* The following table gives the value of materials used in factories for the last five years:—

VALUE OF MATERIALS USED IN FACTORIES.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
1932-33 ..	70,084,956	58,081,097	24,772,613	12,321,268	6,067,618	3,220,996	175,148,548
1933-34 ..	77,330,101	61,221,016	27,758,507	13,450,771	6,701,684	3,270,835	189,822,204
1934-35 ..	87,096,873	65,090,371	30,310,510	15,275,492	7,151,382	3,577,380	209,047,017
1935-36 ..	98,950,321	76,491,159	30,001,341	19,201,750	9,172,205	4,195,021	238,974,797
1936-37 ..	109,593,494	80,302,423	34,612,231	21,399,805	9,427,259	5,243,691	260,578,903

5. **Total Value of Output.**—(i) *Total, 1936-37.* The value of the output of new goods manufactured and of repairs effected in factories of various classes in each State in 1936-37 is shown in the following table. The figures given represent not only the increase in value due to the process of manufacture, but include also the values of the raw materials and the power, fuel and light used. The difference between the sum of the values of the materials and the fuel and light used, and the total output (see par. 6) is the real value of factory production.

TOTAL VALUE OF OUTPUT OF FACTORIES, 1936-37.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
I. Treatment of Non-metaliferous Mine and Quarry Products ..	£	£	£	£	£	£	£
II. Bricks, .. Pottery, Glass, etc. ..	4,169,412	2,445,353	681,053	380,564	579,952	444,179	8,700,513
III. Chemicals, .. Dyes, Explosives, Paints, Oils and Grease ..	3,706,042	2,018,926	370,588	558,517	363,789	91,435	7,109,297
IV. Industrial Metals, Machines, Imple-ments and Con-veyances ..	13,313,502	9,073,976	894,605	1,896,325	1,524,470	159,578	26,862,456
V. Precious Metals, Jewellery and Plate ..	67,995,844	26,849,850	7,760,950	14,707,266	3,758,493	3,696,648	124,769,051
VI. Textiles and Textile Goods ..	400,669	917,674	49,691	61,449	29,958	4,950	1,464,391
VII. Skins and Leather ..	8,386,992	14,262,943	704,458	1,130,245	243,158	916,101	25,643,897
VIII. Clothing ..	4,621,174	4,547,047	1,862,554	197,917	269,655	45,380	11,543,727
IX. Food, Drink and Tobacco ..	11,364,175	16,021,980	2,076,662	1,107,635	891,890	158,733	31,621,075
X. Woodworking and Basketware ..	45,723,043	41,770,149	30,520,943	9,442,483	6,229,385	2,741,757	136,427,760
XI. Furniture, Bedding etc. ..	7,353,356	5,066,362	3,821,018	1,437,727	1,743,311	884,310	20,306,084
XII. Paper, Stationery, Printing, Book-binding, etc. ..	3,812,377	2,573,992	911,578	526,388	476,543	123,076	8,423,954
XIII. Rubber ..	9,937,674	8,182,693	1,760,647	1,126,434	925,193	430,338	22,380,979
XIV. Musical Instru-ments ..	2,710,942	3,455,116	320,557	68,914	44,802	25,769	6,625,200
XV. Miscellaneous Pro-ducts ..	130,196	30,888	15,625	8,104	10,283	..	195,096
Total, Classes I. to XV. ..	2,019,425	1,472,254	97,843	149,466	70,405	65,128	3,874,521
XVI. Heat, Light and Power ..	185,643,923	138,689,203	51,857,772	32,709,434	17,161,287	9,796,382	435,948,001
Grand Total ..	7,168,491	4,002,989	1,164,236	1,728,742	1,151,835	664,984	15,881,277
Grand Total ..	192,812,414	142,692,192	53,022,008	34,528,176	18,313,122	10,461,366	451,829,278

(ii) *Total, 1932-33 to 1936-37.* The following statement shows the value of output of factories in each State in the five years ended 1936-37 :—

TOTAL VALUE OF OUTPUT OF FACTORIES.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
1932-33 ..	124,445,767	102,085,429	38,435,343	20,940,698	12,327,548	6,563,083	304,797,868
1933-34 ..	130,611,971	108,496,310	42,444,785	22,919,297	12,877,288	6,780,409	330,134,060
1934-35 ..	154,133,248	117,182,857	46,021,303	25,699,172	14,641,680	7,223,124	365,201,384
1935-36 ..	174,693,761	134,043,170	47,664,810	31,904,091	17,528,741	8,853,882	414,688,455
1936-37 ..	192,812,414	142,692,192	53,022,008	34,528,176	18,313,122	10,461,366	451,829,278

6. **Value of Production.**—(i) *Total in Classes, 1936-37.* The value of production for any industry was defined by the Conference of Statisticians at Sydney in 1925 as "the value of consumable commodities produced during the year, deducting, so far as possible, the value of goods consumed in process of production."

In accordance with this definition, it was agreed that a deduction consisting of the costs of raw material, containers, power, fuel, light, lubricants, water, tools replaced, repairs to plant and depreciation should be made from the "value of output". All these deductions with the exception of depreciation are included in the items "value of materials used" and "value of fuel used" as defined above. On account of the difficulty experienced in securing accurate figures for depreciation, it was subsequently agreed that the particulars obtained should be published but that no deduction should be made on this account for the present. The value of production as given in the following tables is obtained, therefore, by deducting "value of materials used" and "value of fuel used" from the "value of the output."

The figure thus calculated is, however, not the net value of production. The deduction for depreciation, particulars of which are shown in § 8 par. 4, was estimated at £9,584,314 for 1936-37. Many miscellaneous expenses, also, such as insurance and advertising, have not been taken into account. Hence, it must not be inferred that when wages and salaries are deducted from the value of production, the whole of the "surplus" is available for interest and profit.

The following table shows the value of production in 1936-37 in each State for the various classes of factories :—

VALUE OF PRODUCTION, 1936-37.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	1,843,075	1,279,790	315,041	207,781	293,922	240,375	4,179,984
II. Bricks, Pottery, Glass, etc. ..	2,440,103	1,348,477	267,785	344,577	233,178	52,308	4,686,428
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	5,877,158	3,934,174	334,591	638,308	472,128	56,407	11,312,766
IV. Industrial Metals, Machines, Implements and Conveyances ..	25,872,008	14,057,073	4,136,941	4,823,181	2,139,716	1,715,673	52,744,592
V. Precious Metals, Jewellery and Plate ..	249,500	502,471	38,148	40,662	22,763	4,217	857,761
VI. Textiles and Textile Goods ..	3,139,660	5,776,280	194,889	243,173	95,668	378,486	9,828,156
VII. Skins and Leather ..	1,108,772	1,183,828	219,331	77,020	91,271	17,225	3,117,133
VIII. Clothing ..	5,380,198	7,050,326	1,017,719	611,122	476,188	89,982	14,625,535
IX. Food, Drink and Tobacco ..	13,754,637	10,913,498	6,522,195	2,385,379	1,861,659	788,335	36,225,703
X. Woodworking and Basketware ..	2,845,008	2,185,853	1,557,964	498,419	864,319	423,054	8,374,617
XI. Furniture, Bedding, etc. ..	1,675,762	1,145,974	457,477	239,516	226,716	60,812	3,818,257
XII. Paper, Stationery, Printing, Book-binding, etc. ..	5,603,658	4,477,450	1,141,145	665,303	584,134	323,952	12,794,742
XIII. Rubber ..	768,480	1,273,175	102,103	33,508	21,006	14,931	2,303,202
XIV. Musical Instruments ..	87,521	22,503	13,214	4,678	9,678	..	137,594
XV. Miscellaneous Products ..	999,978	691,367	61,657	85,880	37,835	40,913	1,917,630
Total, Classes I. to XV.	71,732,527	56,142,236	16,500,263	10,898,573	7,433,271	4,214,630	166,921,500
XVI. Heat, Light and Power ..	5,021,451	2,570,045	684,259	1,372,990	513,426	600,974	10,763,145
Grand Total ..	76,753,978	58,712,281	17,184,522	12,271,563	7,946,697	4,815,604	177,684,645

(ii) *Total and Averages, 1932-33 to 1936-37.* The value of production and the amount per person engaged and per head of population are shown in the following table for the years specified:—

FACTORIES.—VALUE OF PRODUCTION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
VALUE.							
1932-33 ..	£ 49,599,430	£ 41,081,102	£ 12,756,837	£ 7,854,500	£ 5,061,842	£ 2,879,437	£ 119,203,148
1933-34 ..	54,042,154	44,201,945	13,712,508	8,641,477	5,444,280	3,049,851	129,091,915
1934-35 ..	61,410,068	48,772,941	14,763,349	9,557,113	6,284,923	3,138,140	143,816,100
1935-36 ..	69,469,955	54,043,690	15,682,944	11,069,705	7,504,209	4,066,860	162,437,363
1936-37 ..	76,753,978	58,712,281	17,184,522	12,271,563	7,946,697	4,815,604	177,684,645

PER PERSON ENGAGED.

	£	£	£	£	£	£	£
1932-33 ..	358	284	341	298	342	312	321
1933-34 ..	351	283	342	293	337	312	318
1934-35 ..	351	287	340	285	354	299	320
1935-36 ..	360	295	348	303	357	351	330
1936-37 ..	368	307	356	301	350	387	339

PER HEAD OF POPULATION.

	£	£	£	£	£	£	£
1932-33 ..	19.13	22.64	13.56	13.55	11.59	12.63	18.05
1933-34 ..	20.68	24.22	14.43	14.84	12.36	13.32	19.40
1934-35 ..	23.62	26.55	15.22	16.36	14.18	13.78	21.40
1935-36 ..	26.15	29.32	16.13	19.91	16.76	17.66	24.06
1936-37 ..	28.63	31.70	17.46	20.86	17.59	20.74	26.11

7. *Value of Output and Cost of Production.*—As the total value of the output for Australia for 1936-37 was estimated at £451,829,278, there remained, after payment of £260,578,903, the value of the materials used, of £90,123,132 for salaries and wages, and of £13,565,730 for fuel, the sum of £87,561,513 to provide for all other expenditure, depreciation, interest and profits. The following table gives corresponding particulars for each State expressed absolutely and as percentages on the total value of the output for the year 1936-37:—

FACTORIES.—VALUE OF OUTPUT AND COST OF PRODUCTION, 1936-37.

State.	Materials. Used. (a)	Power, Fuel and Light. (b)	Salaries and Wages.	All other Expenditure, Interest, Profits, etc.	Total Value of Output.
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VALUE AND COST, ETC.

	£	£	£	£	£
New South Wales ..	109,593,494	6,464,942	36,642,444	40,111,534	192,812,414
Victoria ..	80,302,423	3,677,488	30,986,895	27,725,386	142,692,192
Queensland ..	34,612,231	1,225,255	9,088,637	8,095,885	53,022,008
South Australia ..	21,399,805	856,808	7,172,638	5,098,925	34,528,176
Western Australia ..	9,427,259	939,166	4,157,733	3,788,964	18,313,122
Tasmania ..	5,243,691	402,071	2,074,785	2,740,819	10,461,366
Australia ..	260,578,903	13,565,730	90,123,132	87,561,513	451,829,278

(a) Including the value of containers, packing, etc., also the cost of tools replaced and repairs to plant.

(b) Including lubricants and water.

FACTORIES.—VALUE OF OUTPUT AND COST OF PRODUCTION, 1936-37.—
continued.

State.	Materials. Used. (a)	Power, Fuel and Light. (b)	Salaries and Wages.	All other Expenditure, Interest, Profits, etc.	Total Value of Output.
PERCENTAGE OF COSTS, ETC., ON TOTAL VALUE.					
	%	%	%	%	%
New South Wales ..	56.84	3.36	19.00	20.80	100.00
Victoria ..	56.28	2.58	21.71	19.43	100.00
Queensland ..	65.28	2.31	17.14	15.27	100.00
South Australia ..	61.98	2.48	20.77	14.77	100.00
Western Australia ..	51.48	5.13	22.70	20.69	100.00
Tasmania ..	50.12	3.85	19.83	26.20	100.00
Australia ..	57.67	3.00	19.95	19.38	100.00

(a) Including the value of containers, packing, etc., also the cost of tools replaced and repairs to plant.

(b) Including lubricants and water.

§ 8. Value of Land, Buildings, Plant and Machinery.

1. **General.**—The following statement shows the value of land and buildings and of plant and machinery used in connexion with manufacturing industries during the year 1936-37:—

VALUE OF LAND, BUILDINGS, PLANT AND MACHINERY, 1936-37.

Value of—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
Land and buildings	51,629,598	38,948,268	11,483,161	8,133,147	6,279,305	3,952,658	110,526,137
Plant and machinery	51,979,614	36,213,626	17,460,253	9,130,748	7,142,368	4,750,486	126,677,095
Total ..	103,609,212	75,161,894	28,943,414	17,263,895	13,421,673	7,803,144	246,203,232

The values recorded in this section are generally the values apportioned in the books of the individual firms after allowance has been made for depreciation. The totals shown in the table consequently do not represent the actual amount of capital invested in the items specified.

2. **Value of Land and Buildings.**—(i) *Total, Australia, 1932-33 to 1936-37.* The appended table shows for Australia as a whole the approximate value of land and buildings occupied in connexion with manufacturing industries from 1932-33 to 1936-37 inclusive:—

VALUE OF LAND AND BUILDINGS.—AUSTRALIA.

Class of Industry.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	2,396,967	2,415,120	2,409,200	2,412,145	2,617,765
II. Bricks, Pottery, Glass, etc. ..	2,214,761	2,376,697	2,558,791	2,706,575	2,686,930
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	5,832,064	5,903,867	6,129,529	6,398,332	6,596,554
IV. Industrial Metals, Machines, Implements and Conveyances ..	45,632,777	25,877,989	26,718,722	27,873,261	30,061,037
V. Precious Metals, Jewellery and Plate ..	490,511	518,293	536,745	561,735	602,685
VI. Textiles and Textile Goods ..	1,093,710	5,107,100	5,109,210	5,117,503	5,535,120
VII. Skins and Leather ..	1,768,577	1,780,880	1,790,607	1,833,335	2,008,167
VIII. Clothing ..	8,894,673	9,059,219	9,571,442	9,750,733	10,282,902
IX. Food, Drink and Tobacco ..	26,645,408	27,006,548	27,949,389	28,928,977	30,166,301
X. Woodworking and Basketware ..	3,506,606	3,486,892	3,694,166	3,769,305	3,838,701
XI. Furniture, Bedding, etc. ..	1,869,195	1,963,269	2,056,019	2,196,782	2,370,393
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	9,048,531	9,093,698	9,221,000	9,504,871	9,608,662
XIII. Rubber ..	1,853,590	1,893,051	1,849,493	1,842,048	1,751,707
XIV. Musical Instruments ..	212,112	144,215	122,887	115,948	109,531
XV. Miscellaneous Products ..	1,014,793	1,063,804	1,114,681	1,213,697	1,323,085
Total, Classes I. to XV.	96,374,278	97,699,053	100,892,696	104,615,247	109,642,780
XVI. Heat, Light and Power ..	9,462,594	9,838,768	9,947,961	9,994,655	9,883,357
Grand Total ..	105,836,872	107,537,866	110,840,657	114,609,902	119,526,137

(ii) Value in each State, 1936-37. The following table gives similar information for each State for 1936-37 :—

VALUE OF LAND AND BUILDINGS, 1936-37.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	1,176,378	805,424	207,033	152,608	104,750	171,572	2,617,765
II. Bricks, Pottery, Glass, etc. ..	1,532,168	736,290	119,897	162,217	116,119	20,239	2,686,930
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	2,438,653	2,788,955	171,107	451,454	667,129	79,256	6,596,554
IV. Industrial Metals, Machines, Implements and Conveyances ..	14,713,578	8,328,919	2,248,086	2,341,470	1,553,730	875,254	30,061,037
V. Precious Metals, Jewellery and Plate ..	207,962	294,603	30,899	34,861	25,635	8,725	602,685
VI. Textiles and Textile Goods ..	1,861,815	3,093,045	126,253	165,742	64,765	246,800	5,558,420
VII. Skins and Leather ..	770,476	926,931	126,727	48,073	122,712	13,248	2,008,167
VIII. Clothing ..	4,188,960	4,369,901	617,784	543,560	465,299	97,398	10,282,902
IX. Food, Drink and Tobacco ..	10,962,862	9,047,184	5,267,055	2,337,522	1,627,923	923,755	30,166,301
X. Woodworking and Basketware ..	1,586,234	981,942	516,358	304,153	293,107	156,907	3,838,701
XI. Furniture, Bedding, etc. ..	965,174	819,478	261,900	160,690	125,697	37,454	2,370,393
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	4,072,984	3,172,338	944,618	702,321	667,400	108,041	9,668,662
XIII. Rubber ..	805,500	722,233	105,079	59,644	35,746	22,515	1,751,707
XIV. Musical Instruments ..	55,949	32,349	7,460	2,278	11,495	..	109,531
XV. Miscellaneous Products ..	708,107	151,011	57,860	58,677	31,152	1,888	1,323,085
Total, Classes I. to XV.	46,047,280	36,573,603	10,809,016	7,525,270	5,915,659	2,771,952	109,642,780
XVI. Heat, Light and Power ..	5,582,318	2,374,665	674,145	607,877	363,646	280,706	9,883,357
Grand Total ..	51,629,598	38,948,268	11,483,161	8,133,147	6,279,305	3,052,658	119,526,137

(iii) *Value in each State, 1932-33 to 1936-37.* The total value of factory land and buildings for each year from 1932-33 to 1936-37 is given hereunder :—

VALUE OF LAND AND BUILDINGS.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
1932-33 ..	45,873,565	34,804,987	9,075,596	7,915,965	5,537,227	2,629,532	105,836,872
1933-34 ..	46,310,925	35,563,879	9,161,570	7,981,311	5,581,057	2,636,761	107,537,806
1934-35 ..	47,937,192	36,644,621	9,942,803	7,947,825	5,673,461	2,594,755	110,840,657
1935-36 ..	49,494,222	37,678,298	10,514,513	8,268,807	5,978,111	2,675,951	114,609,902
1936-37 ..	51,629,598	38,948,268	11,483,161	8,133,147	6,279,305	3,052,658	119,526,137

Prior to 1929-30 the increase in the value of land and buildings was uninterrupted, rising from £23 million in 1903 to £118 million in 1929-30, a growth of £95 million in 27 years. During the three years ending 1932-33, however, there was a decline of £12 million to £105.8 million, but during the next four years the value had risen to £119.5 million.

3. *Value of Plant and Machinery.*—(i) *Total, Australia, 1932-33 to 1936-37.* The following table shows for Australia the approximate value of plant and machinery used in factories in each of the years specified :—

VALUE OF PLANT AND MACHINERY.—AUSTRALIA.

Class of Industry.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products	5,517,010	5,373,802	5,279,528	5,249,528	4,881,743
II. Bricks, Pottery, Glass, etc.	2,291,788	2,414,175	2,649,482	2,865,499	2,858,777
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease	5,537,025	5,386,426	5,638,866	5,722,327	5,923,776
IV. Industrial Metals, Machines, Implements and Conveyances	24,910,610	24,611,820	24,976,454	25,604,490	26,940,963
V. Precious Metals, Jewellery and Plate	141,446	148,402	162,129	175,884	187,373
VI. Textiles and Textile Goods	5,743,596	5,751,145	5,799,227	6,052,307	6,505,668
VII. Skins and Leather	903,709	913,723	892,370	898,598	902,197
VIII. Clothing	2,054,915	2,061,074	2,180,610	2,256,669	2,326,915
IX. Food, Drink and Tobacco	27,618,639	27,305,642	29,207,778	30,041,612	30,244,206
X. Woodworking and Basketware	3,318,657	3,326,466	3,490,416	3,629,550	3,597,835
XI. Furniture, Bedding, etc.	645,200	679,252	661,980	678,710	704,768
XII. Paper, Stationery, Printing, Bookbinding, etc.	7,111,322	7,139,924	7,108,001	7,532,292	7,773,218
XIII. Rubber	1,749,634	1,710,597	1,639,724	1,404,225	1,401,645
XIV. Musical Instruments	93,230	33,582	24,209	18,157	14,800
XV. Miscellaneous Products	545,511	560,737	580,623	579,858	671,173
Total, Classes I. to XV.	88,190,292	87,416,767	90,291,397	92,769,706	94,934,997
XVI. Heat, Light and Power	32,359,565	32,791,361	32,349,558	32,461,385	31,742,098
Grand Total ..	120,549,857	120,208,128	122,640,955	125,231,091	126,677,095

The maximum amount invested in plant and machinery was £127.6 million in 1929-30. The amount declined to £120.2 million during the next four years, but has since risen to £126.7 million.

(ii) *Value in each State, 1932-33 to 1936-37.* The following table shows the value of plant and machinery in each State during the last five years. It will be noted that the chief increases during the year 1936-37 were recorded in Victoria and Western Australia :—

VALUE OF PLANT AND MACHINERY.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
	£	£	£	£	£	£	£
1932-33 ..	49,903,177	33,022,441	16,408,197	9,450,517	5,733,638	6,031,887	120,549,857
1933-34 ..	49,083,921	33,270,400	16,891,339	9,161,672	5,678,638	6,122,158	120,208,128
1934-35 ..	50,453,590	33,947,056	17,114,417	9,293,448	5,763,428	6,069,016	122,640,955
1935-36 ..	51,964,982	34,194,608	17,736,543	9,280,335	6,063,901	5,990,722	125,231,091
1936-37 ..	51,979,614	36,213,626	17,460,253	9,130,748	7,142,368	4,750,486	126,677,095

(iii) *Value according to Industry, 1936-37.* The following table shows the value of plant and machinery used in factories in each State during 1936-37, classified according to industry :—

VALUE OF PLANT AND MACHINERY, 1936-37.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	2,381,080	1,638,316	261,661	233,300	187,866	179,520	4,881,743
II. Bricks, Pottery, Glass, etc. ..	1,550,418	811,936	132,261	181,903	153,208	29,051	2,858,777
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	1,540,438	2,575,762	107,727	787,598	865,116	47,135	5,923,776
IV. Industrial Metals, Machines, Implements and Conveyances ..	15,488,289	5,294,369	1,903,880	1,972,945	971,476	1,310,004	26,940,963
V. Precious Metals, Jewellery and Plate ..	62,865	103,936	5,568	9,900	4,370	1,544	187,373
VI. Textiles and Textile Goods ..	2,017,577	3,805,782	135,620	211,825	78,946	255,018	6,505,668
VII. Skins and Leather ..	354,887	358,203	105,270	10,108	60,121	4,608	902,197
VIII. Clothing ..	791,060	1,183,805	172,204	86,844	78,135	14,867	2,326,915
IX. Food, Drink and Tobacco ..	9,105,550	6,676,623	10,753,121	1,793,191	1,480,829	434,892	30,244,206
X. Woodworking and Basketware ..	1,001,337	894,908	775,570	202,160	473,597	250,263	3,597,835
XI. Furniture, Bedding, etc. ..	294,080	201,186	84,101	71,695	35,532	18,114	704,708
XII. Paper, Stationery, Printing, Book-binding, etc. ..	3,423,800	2,698,890	686,553	500,718	359,904	112,353	7,773,218
XIII. Rubber ..	526,292	808,248	39,176	13,938	8,312	5,679	1,401,645
XIV. Musical Instruments ..	8,640	4,681	251	736	492	..	14,800
XV. Miscellaneous Products ..	356,846	262,613	15,366	17,670	12,250	6,428	671,173
Total, Classes I. to XV.	38,903,159	27,319,258	15,178,329	6,093,721	4,770,154	2,670,376	94,934,997
XVI. Heat, Light and Power ..	13,076,455	8,894,368	2,281,924	3,037,027	2,372,214	2,080,110	31,742,098
Grand Total ..	51,979,614	36,213,626	17,460,253	9,130,748	7,142,368	4,750,486	126,677,095

4. Depreciation of Land and Buildings and Plant and Machinery.—The following table shows the allowance made for the depreciation of land and buildings and plant and machinery used in connexion with the manufacturing industries in each State during the year 1936-37.

ALLOWANCE FOR DEPRECIATION OF LAND AND BUILDINGS AND PLANT AND MACHINERY, 1936-37.

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	337,774	95,434	28,683	12,757	30,206	39,048	543,902
II. Bricks, Pottery, Glass, etc. ..	196,994	49,943	9,653	13,886	16,491	1,416	288,383
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	215,724	264,159	16,250	21,928	56,992	7,111	582,164
IV. Industrial Metals, Machines, Implements and Conveyances ..	1,564,392	404,801	140,892	272,516	66,751	131,879	2,581,231
V. Precious Metals, Jewellery and Plate ..	6,158	8,532	459	623	1,046	64	16,852
VI Textiles and Textile Goods ..	203,228	380,010	5,625	18,927	2,793	28,000	638,583
VII. Skins and Leather ..	30,234	46,212	8,144	753	3,415	358	92,233
VIII. Clothing ..	80,946	123,127	9,132	6,398	18,033	3,227	240,863
IX. Food, Drink and Tobacco ..	670,962	529,343	586,688	151,414	106,966	42,207	2,087,580
X. Woodworking and Basketware ..	115,193	81,352	63,075	29,707	48,813	19,833	357,973
XI. Furniture, Bedding, etc. ..	27,979	17,313	9,341	5,881	6,095	1,567	68,176
XII. Paper, Stationery, Printing, Book-Binding, etc. ..	264,000	266,041	62,970	52,712	40,934	13,185	700,742
XIII. Rubber ..	93,030	73,059	1,599	1,537	1,170	536	175,540
XIV. Musical Instruments ..	5,086	175	11	32	297	..	5,601
XV. Miscellaneous Products ..	28,075	32,260	1,420	2,812	2,072	628	67,267
Total, Classes I. to XV.	3,839,734	2,376,231	946,947	591,893	403,183	289,059	8,447,097
XVI. Heat, Light and Power ..	569,160	253,503	176,236	17,163	71,444	49,711	1,137,217
Grand Total ..	4,408,944	2,629,734	1,123,183	609,056	474,627	338,770	9,584,314

§ 9. Individual Industries.

1. General.—The preceding pages afford a general view of the magnitude of industries in the sixteen groups adopted by the Conference of Statisticians in 1930. While it is not possible, within the limits of this work, to give a detailed account in respect of all industries, particular industries which are of special importance by reason of the employment which they provide for labour and capital or other features of special interest are dealt with hereunder. Where there are only one or two establishments of a particular class in any State, returns of output are not published but are combined with some other factory group so that the operations of individual concerns will not be disclosed.

2. Chemicals, Drugs and Medicines.—(i) *Details for each State, 1936-37.* This industry is the most important in Class III. and details for each State during the year 1936-37 are shown in the following table:—

CHEMICALS, DRUGS AND MEDICINES, 1936-37.

Items.	N.S.W. (a)	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	119	68	15	9	10	4	225
Number of persons engaged ..	2,572	1,679	195	292	164	26	4,928
Value of land and buildings £	864,110	560,637	68,319	70,167	49,458	14,382	1,627,073
Value of plant and machinery £	494,043	361,231	45,326	53,111	126,800	458	1,080,969
Wages paid ..	£ 434,453	306,822	34,534	38,076	32,555	2,814	849,254
Value of fuel used ..	£ 58,300	30,551	4,432	5,628	8,264	65	107,240
Value of materials used £	1,617,185	941,094	111,213	191,947	76,702	10,409	2,948,550
Total value of output ..	£ 3,692,899	1,975,871	219,761	288,144	169,201	16,967	6,362,843
Value of production ..	£ 2,017,414	1,004,226	104,116	90,569	84,235	6,493	3,307,053

(a) Includes Explosives.

(ii) *Total for Australia, 1932-33 to 1936-37.* In the returns for Australia shown in the following table it will be seen that the industry has made consistent progress during each of the last four years:—

CHEMICALS, DRUGS AND MEDICINES.—AUSTRALIA.

Items.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Number of factories ..	182	190	203	214	225
Number of persons engaged ..	3,524	3,852	4,251	4,610	4,928
Value of land and buildings ..	£ 1,297,851	1,350,042	1,435,705	1,556,254	1,627,073
Value of plant and machinery ..	£ 820,679	832,532	920,216	986,700	1,080,969
Wages paid ..	£ 613,279	651,557	713,018	786,211	849,254
Value of fuel used ..	£ 77,499	84,127	90,732	99,376	107,240
Value of materials used ..	£ 2,121,117	2,287,226	2,441,380	2,751,056	2,948,550
Total value of output ..	£ 4,281,625	4,828,851	5,171,339	5,723,675	6,362,843
Value of production ..	£ 2,083,009	2,457,498	2,639,227	2,873,243	3,307,053

3. Soap and Candle Factories. —(i) *Details for each State, 1936-37.* The manufacture of these products is frequently carried on in the same factory, so that separate returns cannot be obtained; the manufacture of soap is, however, the more important. The following table gives particulars of soap and candle factories in each State for the year 1936-37:—

SOAP AND CANDLE FACTORIES, 1936-37.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W.A.	Tas.	Australia.
Number of factories ..	27	19	12	4	3	1	66
Number of persons engaged ..	1,245	700	195	153	62	24	2,379
Value of land and buildings ..	£ 302,199	203,741	35,339	58,746	(a)	(a)	b 624,162
Value of plant and machinery ..	£ 185,083	206,879	26,981	49,601	(a)	(a)	b 484,225
Wages paid ..	£ 242,223	125,332	35,394	23,957	(a)	(a)	b 441,857
Value of fuel used ..	£ 22,568	31,975	3,558	2,855	(a)	(a)	b 63,368
Value of materials used ..	£ 965,842	616,177	105,155	92,024	(a)	(a)	b 1,858,810
Total value of output ..	£ 1,819,113	1,243,208	198,896	168,840	(a)	(a)	b 3,551,887
Value of production ..	£ 830,703	595,056	90,183	73,961	(a)	(a)	b 1,629,709

(a) Particulars not available for publication.

(b) Including Western Australia and Tasmania.

(ii) *Total for Australia, 1932-33 to 1936-37.* The next table gives similar particulars for the last five years for Australia :—

SOAP AND CANDLE FACTORIES.—AUSTRALIA.

Items	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Number of factories	64	71	67	66	66
Number of persons engaged	2,010	1,985	2,044	2,183	2,379
Value of land and buildings	£ 656,181	640,603	626,261	613,717	624,162
Value of plant and machinery	£ 618,337	573,905	530,298	514,845	484,225
Wages paid	£ 369,397	338,517	354,011	385,431	441,857
Value of fuel used	£ 62,545	58,741	56,774	76,340	63,368
Value of materials used	£ 1,408,015	1,365,699	1,145,528	1,689,835	1,858,810
Total value of output	£ 2,664,778	2,696,600	2,917,802	3,107,553	3,551,887
Value of production	£ 1,194,218	1,272,166	1,415,500	1,341,378	1,629,709

(iii) *Raw Material Used and Production, 1932-33 to 1936-37.* The following statement shows the quantities of certain raw material used and the production in soap and candle factories in Australia for the last five years :—

SOAP AND CANDLE FACTORIES. RAW MATERIAL USED AND PRODUCTION. AUSTRALIA.

Particulars.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Tallow used cwt.	499,188	492,624	511,936	491,423	518,604
Alkali used	236,937	264,570	264,147	288,461	227,028
Copra oil used	74,362	80,150	92,952	125,548	466,222
Soap made	924,403	891,832	932,252	954,082	986,578
Candles made	49,562	51,598	48,398	39,937	37,991

The output for the year 1936-37 comprised the following quantities of soap :— Household, 742,073 cwt.; toilet, 118,211 cwt.; sand, 86,945 cwt.; soft, 18,858 cwt.; and other, 20,491 cwt.

4. **Chemical Fertilizers.**—(i) *Details for each State, 1936-37.* The following table gives particulars of the factories engaged in the manufacture of chemical fertilizers in each State during the year 1936-37. Details of the consumption, imports and exports of fertilizers will be found in Chapter XX. "Agriculture."

CHEMICAL FERTILIZERS, 1936-37.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories	4	5	5	9	5	6	34
Number of persons engaged	209	921	88	592	368	36	2,214
Value of land and buildings	£ 81,672	507,002	15,379	218,052	498,438	47,532	1,368,075
Value of plant and machinery	£ 77,280	758,334	15,281	595,350	664,583	21,000	2,145,237
Wages paid	£ 48,400	202,737	18,133	121,782	94,879	7,114	493,315
Value of fuel used	£ 12,880	41,206	1,316	21,021	17,616	61	94,340
Value of materials used	£ 345,761	1,024,890	209,518	534,053	693,145	68,118	2,873,015
Total value of output	£ 585,004	1,586,252	285,182	831,265	998,299	82,603	4,378,505
Value of production	£ 226,363	520,156	74,348	275,591	287,538	24,214	1,408,210

(ii) *Total for Australia, 1932-33 to 1936-37.* The development of this industry since 1932-33 is set out hereunder:—

CHEMICAL FERTILIZERS.—AUSTRALIA.

Items.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Number of factories	33	34	33	33	34
Number of persons engaged	1,702	1,706	1,801	1,990	2,211
Value of land and buildings	£ 1,398,489	1,446,410	1,305,737	1,378,630	1,368,075
Value of plant and machinery	£ 2,199,257	2,095,142	2,120,628	2,127,113	2,145,237
Wages paid	£ 377,116	364,726	386,277	442,052	493,345
Value of fuel used	£ 88,949	86,137	84,028	88,676	94,340
Value of materials used	£ 2,849,768	2,452,106	2,370,798	2,726,551	2,873,013
Total value of output	£ 4,028,984	3,577,732	3,440,860	3,006,041	4,375,565
Value of production	£ 1,090,267	1,039,489	986,034	1,090,814	1,408,210

5. *Agricultural Implement Works.*—(i) *General.* The manufacture of agricultural implements is of particular interest, owing to the extensive agricultural activities and to the fact that it was one of the first to which it was sought to apply the so-called "New Protection." The articles manufactured include stripper-harvesters, header harvesters or reaper threshers, strippers, reapers and binders, stump-jump and other ploughs, harrows, disc and other cultivators, winnowers, corn-shellers and baggers, drills, kerosene and petrol engines, and other implements employed in agriculture. The stripper harvester, which combines the stripper with a mechanism for winnowing and bagging grain, is an Australian invention, and is universally employed in the larger wheat-growing areas.

(ii) *Details for States, 1936-37.* The following table gives details respecting agricultural implement works in each State for the year 1936-37:—

AGRICULTURAL IMPLEMENT WORKS, 1936-37.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories	24	74	8	34	8	..	148
Number of persons engaged	1,082	3,186	459	1,132	94	..	6,253
Value of land and buildings	£ 129,236	342,503	29,654	144,607	43,612	..	689,612
Value of plant and machinery	£ 80,050	360,033	59,043	182,042	2,474	..	683,642
Wages paid	£ 196,716	737,793	86,295	192,098	19,936	..	1,232,838
Value of fuel used	£ 10,647	53,541	6,309	14,206	466	..	85,221
Value of materials used	£ 236,568	903,249	65,407	240,775	11,000	..	1,457,599
Total value of output	£ 527,047	1,903,662	178,200	499,575	42,248	..	3,150,732
Value of production	£ 279,832	946,872	106,424	244,594	30,182	..	1,607,904

(iii) *Total for Australia, 1932-33 to 1936-37.* This industry declined considerably during the war years, but great progress was made thereafter. The fall in world prices of agricultural products resulted in a considerable slackening in employment and output during the years 1929-30 to 1934-35, but the industry has expanded considerably during the past two years. Details for each of the last five years are as follows:—

AGRICULTURAL IMPLEMENT WORKS.—AUSTRALIA.

Items.	1932-33	1933-34.	1934-35.	1935-36.	1936-37.
Number of factories	142	139	139	143	147
Number of persons engaged	3,770	3,924	4,202	5,053	6,253
Value of land and buildings	£ 613,216	607,370	582,065	608,670	689,612
Value of plant and machinery	£ 552,296	562,396	562,345	600,915	683,642
Wages paid	£ 626,214	671,861	730,000	936,350	1,232,838
Value of fuel used	£ 53,234	53,365	59,001	64,518	85,229
Value of materials used	£ 779,959	799,197	875,754	1,121,178	1,457,599
Total value of output	£ 1,690,523	1,766,707	1,968,593	2,528,088	3,150,732
Value of production	£ 866,330	914,145	1,033,838	1,310,092	1,607,904

6. **Engineering Works.**—Formerly, it was impossible to show separate details for the engineering industry owing to the different classifications among the States, but since 1926-27 substantial uniformity has been attained, and with one or two duplications of minor importance, the following figures may be accepted as reasonably accurate for the engineering industry, excluding the marine and electrical branches :—

ENGINEERING WORKS,(a) 1936-37.

Items.	N.S.W.	Victoria.	Q'land. (b)	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	322	388	112	67	126	22	1,037
Number of persons engaged	8,027	8,315	2,092	1,355	1,344	271	22,394
Value of land and buildings	1,268,337	1,297,609	337,010	131,536	227,137	46,552	3,308,181
Value of plant and machinery ..	£ 1,022,504	1,184,561	297,898	150,424	206,341	37,324	2,899,052
Wages paid ..	£ 1,654,639	1,639,793	529,772	198,841	347,173	52,695	4,422,913
Value of fuel used	£ 81,188	86,263	34,815	15,373	24,681	3,109	245,429
Value of materials used	£ 2,217,495	2,370,639	722,722	277,273	544,609	41,612	6,174,350
Total value of output	£ 4,913,211	5,151,995	1,551,863	600,481	1,195,676	117,268	13,530,494
Value of production	£ 2,614,528	2,695,093	794,326	307,835	626,386	72,547	7,110,715

(a) Excluding marine and electrical.

(b) Including establishments previously included with smelting, converting, refining and rolling of iron and steel.

In addition to engineering works which supply ordinary requirements, many establishments manufacture special classes of machinery and implements. The manufacture of mining, smelting and textile machinery and apparatus forms an important section of this industry.

7. **Smelting, Converting, Refining and Rolling of Iron and Steel.**—The extension of the classification noted in the preceding paragraph has made possible the separate publication of details for the group of industries comprised herein. This grouping includes ironworks, foundries, the making of iron safes and doors, steel castings, iron bedsteads, sash weights, steel window frames and sashes, nuts and bolts, springs, horse-shoes, screws, lifts, tools, brickmakers' implements and oxy-acetylene welding. Particulars for the year 1936-37 are as follows :—

SMELTING, CONVERTING, REFINING AND ROLLING OF IRON AND STEEL, 1936-37.

Items.	N.S.W.	Victoria.	Q'land. (a)	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	164	203	..	31	1	..	399
Number of persons engaged	12,397	5,659	..	1,421	91	..	19,568
Value of land and buildings	£ 2,356,281	658,155	..	(b)	(b)	..	c 3,137,935
Value of plant and machinery	£ 5,038,774	658,256	..	(b)	(b)	..	c 6,393,113
Wages paid ..	£ 2,044,682	1,063,200	..	(b)	(b)	..	c 4,247,254
Value of fuel used	£ 1,872,087	141,812	..	(b)	(b)	..	c 2,045,355
Value of materials used	£ 14,245,184	1,391,578	..	(b)	(b)	..	c 15,914,302
Total value of output	£ 22,359,013	3,261,293	..	(b)	(b)	..	c 26,272,606
Value of production	£ 6,241,742	1,727,903	..	(b)	(b)	..	c 8,312,949

(a) Now included with Engineering.

(b) Particulars not available for publication.

(c) Including South Australia and Western Australia.

8. **Extracting and Refining of Non-ferrous Metals and Alloys.**—The following table gives particulars of metal extraction and ore reduction works, other than those connected with iron and steel. The classification of these works is not uniform throughout the

States, and the tabulation is somewhat unsatisfactory. The returns do not include particulars of plants used on mines:—

EXTRACTING AND REFINING OF NON-FERROUS METALS AND ALLOYS, 1936-37.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.A. (a)	Tas.	Australia.
Number of factories ..	10	6	15	2	1	4	38
Number of persons engaged ..	1,011	47	633	1,077	42	1,696	4,506
Value of land and buildings £	197,821	17,220	293,184	(b)	(b)	469,846	1,126,179
Value of plant and machinery ..	£ 633,411	4,233	823,796	(b)	(b)	1,162,800	£ 3,187,046
Wages paid ..	£ 290,629	10,868	172,314	(b)	(b)	433,235	£ 1,346,410
Value of fuel used ..	£ 170,300	1,662	95,131	(b)	(b)	200,929	£ 550,565
Value of materials used ..	£ 768,185	165,699	1,210,058	(b)	(b)	1,525,082	£ 3,658,082
Total value of output ..	£ 10,004,906	191,527	2,271,951	(b)	(b)	3,018,128	£ 13,657,463
Value of production ..	£ 2,149,791	24,166	966,762	(b)	(b)	1,202,117	£ 5,079,826

(a) In Western Australia the majority of the plants are worked on the mines, and are therefore not included. (b) Particulars not available for publication. (c) Including South Australia and Western Australia.

9. **Railway and Tramway Workshops.**—(i) *Details for each State, 1936-37.* The railway and tramway workshops which form an important item in Class IV, are chiefly State-owned institutions. The following table giving details concerning them includes, in addition, municipal establishments for manufacturing and repairing rolling-stock. Private institutions to the number of 8 in 1936-37 have, however, been excluded:—

TRAMCARS, RAILWAY ROLLING-STOCK AND CARRIAGES, ETC., (a) 1936-37.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	37	25	12	16	20	7	117
Number of persons engaged ..	11,662	5,746	3,542	3,241	1,990	468	26,649
Value of land and buildings £	2,977,098	1,536,504	560,836	888,751	474,955	95,120	6,533,264
Value of plant and machinery ..	£ 2,376,657	1,128,501	366,944	746,596	388,779	51,246	£ 5,058,723
Wages paid ..	£ 2,592,363	1,303,509	847,185	695,635	424,804	104,201	£ 5,967,787
Value of fuel used ..	£ 100,835	57,059	25,528	27,589	16,332	5,617	£ 233,560
Value of materials used ..	£ 2,038,431	1,270,981	572,354	545,947	267,603	21,935	£ 4,717,251
Total value of output ..	£ 5,204,879	2,886,522	1,589,572	1,396,688	780,450	144,928	£ 12,002,439
Value of production ..	£ 3,065,613	1,558,482	991,690	822,552	495,915	117,376	£ 7,051,628

(a) Government and Municipal only.

A railway workshop in the Northern Territory is chiefly engaged in making repairs to rolling-stock, etc., no new goods being manufactured. Particulars in regard to this establishment are not included in any of the tables in this chapter.

(ii) *Total for Australia, 1932-33 to 1936-37.* The following table shows the development of railway and tramway workshops in Australia since 1932-33:—

TRAMCARS, RAILWAY ROLLING-STOCK AND CARRIAGES, ETC., (a) — AUSTRALIA.

Items.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Number of factories ..	107	109	111	115	117
Number of persons engaged ..	23,069	23,911	24,487	25,678	26,649
Value of land and buildings ..	£ 6,259,362	6,294,948	6,414,502	6,436,495	6,533,264
Value of plant and machinery ..	£ 3,024,051	5,038,157	5,012,877	5,041,663	5,058,723
Wages paid ..	£ 4,802,944	4,835,444	5,166,904	5,585,710	5,967,787
Value of fuel used ..	£ 222,452	226,143	222,611	236,560	233,560
Value of materials used ..	£ 3,733,160	3,795,359	4,052,214	4,444,903	4,717,251
Total value of output ..	£ 9,778,258	9,906,428	10,248,401	11,455,618	12,002,439
Value of production ..	£ 5,822,646	5,884,926	5,973,576	6,774,155	7,051,628

(a) Government and Municipal only.

The growth of the railway and tramway systems resulted in corresponding activity in workshops engaged in the manufacture or repair of rolling-stock, etc. The economic depression practically restricted the industry to repair work during recent years, but there has been considerable expansion in the last two years.

10. **Motor Vehicles and Cycles.**—The industries catering for the motor trade are included in Class IV.—Industrial Metals, Machines, Implements and Conveyances. Returns in regard to assembling and repairing are shown hereunder for the year 1936-37:—

ASSEMBLING AND REPAIRING OF MOTOR VEHICLES AND CYCLES, 1936-37.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	1,094	985	261	151	312	104	2,907
Number of persons engaged ..	7,398	6,881	1,803	1,437	1,372	630	19,521
Value of land and buildings ..	2,309,756	1,674,922	581,392	357,579	456,332	202,940	5,582,921
Value of plant and machinery ..	475,388	446,763	116,350	79,207	99,397	35,238	1,252,343
Wages paid ..	1,200,647	1,232,877	307,099	214,006	237,529	87,376	3,280,034
Value of fuel used ..	58,889	57,690	14,128	10,614	13,540	3,194	158,055
Value of materials used ..	1,235,370	913,036	283,295	176,928	279,231	87,431	2,975,491
Total value of output ..	3,366,803	2,853,411	909,441	504,330	771,329	232,128	8,637,444
Value of production ..	2,072,546	1,882,685	612,018	316,588	478,558	141,503	5,503,898

Particulars in regard to motor body building for the year 1936-37 are as follows:—

MOTOR BODY BUILDING, 1936-37.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	49	86	35	12	19	..	201
Number of persons engaged ..	1,387	3,576	500	6,570	234	..	12,267
Value of land and buildings ..	216,414	531,564	74,373	291,132	61,116	..	1,174,599
Value of plant and machinery ..	37,300	245,237	14,893	138,213	12,733	..	448,376
Wages paid ..	255,530	782,111	87,713	1,399,645	41,587	..	2,566,586
Value of fuel used ..	5,443	17,182	2,503	42,569	1,579	..	60,270
Value of materials used ..	303,569	1,217,715	96,495	1,969,311	52,840	..	3,639,930
Total value of output ..	682,303	2,466,328	229,779	3,729,152	121,049	..	7,228,611
Value of production ..	373,291	1,231,431	130,781	1,717,272	66,630	..	3,519,405

The output of motor bodies for Australia is shown in the next table:

MOTOR BODIES PRODUCED IN AUSTRALIA.

Items.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Motor Bodies—						
Number ..	6,323	13,532	26,302	45,445	67,337	(a) 77,250
Value ..	£ 450,510	1,100,504	2,112,439	4,180,586	6,043,735	6,461,314

(a) Including Motor Bodies assembled.

The maximum number of motor bodies manufactured in Australia was 88,876, recorded in 1926-27.

11. **Electrical Installations, Cables and Apparatus.**—(i) *Details for each State, 1936-37.* The following table shows particulars of this industry for each State during the year 1936-37:—

ELECTRICAL INSTALLATIONS, CABLES AND APPARATUS, 1936-37.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	125	125	13	27	23	5	318
Number of persons engaged ..	5,374	3,079	120	489	126	27	9,215
Value of land and buildings £	766,100	312,050	31,000	76,860	49,135	9,750	1,310,212
Value of plant and machinery £	148,128	100,850	1,000	32,880	8,530	98	187,740
Wages paid ..	£ 923,072	493,081	22,028	71,768	20,991	3,475	1,534,415
Value of fuel used ..	£ 55,911	22,085	574	5,247	1,273	92	85,782
Value of materials used ..	£ 1,406,308	773,197	29,481	150,460	22,087	3,621	2,385,154
Total value of output ..	£ 3,593,695	1,588,779	61,510	260,170	62,111	10,175	5,085,776
Value of production ..	£ 1,631,476	792,897	31,455	113,469	39,081	6,462	2,614,840

(ii) *Total for Australia, 1932-33 to 1936-37.* The increased output of electrical energy in Australia during the past five years, referred to in par. 36 below, necessitated a corresponding demand for electrical equipment. As imports declined heavily during the depression years the local industry was called upon to furnish the bulk of the new supplies, and the result of its operations has been a remarkable development in the manufacture of electrical goods in Australia.

ELECTRICAL INSTALLATIONS, CABLES AND APPARATUS. AUSTRALIA.

Items.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Number of factories ..	246	275	280	294	318
Number of persons engaged ..	5,005	5,774	7,098	8,137	9,215
Value of land and buildings ..	£ 1,063,843	1,122,331	1,168,474	1,245,877	1,349,212
Value of plant and machinery ..	£ 677,566	666,988	659,005	660,504	687,740
Wages paid ..	£ 847,839	931,727	1,130,683	1,325,736	1,534,415
Value of fuel used ..	£ 54,621	63,881	67,565	73,780	85,782
Value of materials used ..	£ 1,145,850	1,383,137	1,716,974	2,059,502	2,385,154
Total value of output ..	£ 2,562,034	3,131,080	3,822,333	4,329,150	5,085,776
Value of production ..	£ 1,361,563	1,684,062	2,037,794	2,195,868	2,614,840

12. **Wireless Apparatus.**—The introduction of wireless broadcasting in 1923 gave rise to a new industry in Australia. Early statistical details of the industry are not available as they were grouped together with other electrical apparatus. In 1930-31, however, a new classification of factories was adopted and "Wireless Apparatus" was shown as a separate industry. The industry is confined, almost entirely, to the States of New South Wales and Victoria. The number of broadcast listeners' licences has increased from 331,128 in 1930-31 to 1,056,004 in 1936-37, and this increase is reflected in the advancement of the industry during that period:—

WIRELESS APPARATUS.—AUSTRALIA.

Items.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Number of factories ..	46	57	56	67	67
Number of persons engaged ..	2,263	2,625	3,366	3,943	4,643
Value of land and buildings ..	£ 218,931	238,940	292,594	378,103	468,164
Value of plant and machinery ..	£ 95,534	97,587	135,208	185,626	261,341
Wages paid ..	£ 271,710	295,702	400,789	493,314	610,291
Value of fuel used ..	£ 9,230	10,969	12,503	17,670	21,354
Value of materials used ..	£ 829,452	958,400	1,172,663	1,398,137	1,590,978
Total value of output ..	£ 1,357,822	1,589,093	1,859,050	2,243,159	2,640,206
Value of production ..	£ 519,140	619,724	673,884	827,352	1,027,874

The number of domestic receiving sets assembled in 1936-37 was 183,143.

13. **Woollen and Tweed Mills.**—(i) *Details for each State, 1936-37.* The manufacture of woollens and tweeds was established at an early period in Australian history and was under Government control, the first record in New South Wales dating back to 1801, when a few blankets were made by convicts, while manufacture in Victoria dates from 1867. The following table gives particulars for the year 1936-37:—

WOOLLEN AND TWEED (INCLUDING WOOLSCOURING) MILLS, 1936-37.

Items.	N.S.W. (a)	Victoria	Q'land.	S. Aust.	W.A.	Tas.	Australia.
				(b)			
Number of factories	20	52	3	8	2	5	90
Number of persons engaged ..	6,289	10,036	470	860	149	1,435	19,239
Value of land and buildings ..	£ 772,487	£ 1,252,528	(c)	99,858	(c)	224,228	d 2,412,499
Value of plant and machinery ..	£ 1,129,032	£ 1,776,088	(c)	179,266	(c)	241,107	d 3,474,275
Wages paid	£ 850,435	£ 1,287,688	(c)	115,489	(c)	183,057	d 2,514,293
Value of fuel used	£ 118,842	£ 187,826	(c)	20,161	(c)	19,244	d 357,777
Value of materials used	£ 2,657,861	£ 3,807,121	(c)	772,537	(c)	95,127	d 7,234,820
Total value of output	£ 4,138,221	£ 6,156,701	(c)	867,656	(c)	878,614	d 12,283,298
Value of production	£ 1,361,488	£ 2,161,754	(c)	183,958	(c)	562,243	d 4,191,001

(a) Woolscouring not included. (b) Includes Fellmongery (c) Particulars not available for publication. (d) Including Queensland and Western Australia.

(ii) *Total for Australia, 1932-33 to 1936-37.* The extent of the woollen and tweed milling industry in Australia during the last five years is shown in the following table:—

WOOLLEN AND TWEED MILLS (INCLUDING WOOLSCOURING).—AUSTRALIA.

Items.	1932-33. (a)	1933-34. (a)	1934-35. (a)	1935-36. (a)	1936-37. (a)
Number of factories	89	98	103	94	90
Number of persons engaged ..	16,206	17,546	17,486	19,693	19,239
Value of land and buildings ..	£ 2,273,954	£ 2,350,997	£ 2,335,913	£ 2,455,141	£ 2,412,499
Value of plant and machinery ..	£ 3,354,724	£ 3,306,464	£ 3,239,780	£ 3,343,968	£ 3,474,275
Wages paid	£ 2,196,162	£ 2,233,024	£ 2,234,513	£ 2,612,723	£ 2,514,293
Value of fuel used	£ 426,331	£ 398,192	£ 380,134	£ 293,775	£ 357,777
Value of materials used	£ 6,084,638	£ 7,401,246	£ 6,504,847	£ 7,548,122	£ 7,734,520
Total value of output	£ 10,307,925	£ 11,635,020	£ 10,712,076	£ 12,545,067	£ 12,283,298
Value of production	£ 3,796,956	£ 3,836,482	£ 3,827,101	£ 4,603,170	£ 4,191,001

(a) Excluding Woolscouring in New South Wales.

(iii) *Quantity and Value of Production.* The production consists chiefly of tweed cloths, flannels, rugs, blankets and yarn, all of which have acquired a reputation for purity and durability. Detailed particulars for the several States are not available for publication. The total length of tweed and cloth manufactured in Australia in 1936-37 was 25,013,855 square yards. In New South Wales 10,946,691 square yards, and in Victoria 12,757,001 square yards of tweed and cloth were manufactured. The production of flannel amounted to 5,004,077 yards, while blankets, shawls and rugs to the number of 1,462,775 were made.

Cotton ginning has been carried on intermittently in the Northern States, and the recent development in cotton growing has led to the establishment of modern ginning plants at convenient centres in Queensland. In New South Wales the first establishment for the manufacture of cotton goods was erected in 1923-24. The number of establishments treating cotton in Australia during 1936-37 was 30, the number of persons engaged 2,973, and the value of the output £2,244,593.

14. **Hosiery and Other Knitted Goods.**—(i) *Details for each State, 1936-37.* In addition to the woollen and tweed factories, there were 297 hosiery and knitting mills operating in Australia during the year 1936-37. The total number of persons engaged

in these establishments was 16,932 of which 11,928 were females. Details for each State are shown hereunder:—

HOSIERY AND OTHER KNITTED GOODS, 1936-37.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	75	208	1	7	3	3	297
Number of persons engaged ..	4,968	11,506	102	71	106	89	16,932
Value of land and buildings ..	£ 612,532	£ 1,181,990	(a)	15,750	8,504	(a)	£ 1,842,228
Value of plant and machinery ..	£ 591,942	£ 1,273,751	(a)	4,265	7,016	(a)	£ 1,001,024
Wages paid ..	£ 621,240	£ 1,363,845	(a)	6,411	2,954	(a)	£ 2,017,003
Value of fuel used ..	£ 30,494	£ 78,231	(a)	303	475	(a)	£ 110,334
Value of materials used ..	£ 1,224,170	£ 2,674,223	(a)	8,680	22,399	(a)	£ 3,078,003
Total value of output ..	£ 2,248,132	£ 5,213,588	(a)	19,252	41,280	(a)	£ 7,000,079
Value of production ..	£ 1,093,468	£ 2,460,934	(a)	10,269	18,406	(a)	£ 3,610,882

(a) Particulars not available for publication.

(b) Including Queensland and Tasmania.

(ii) *Total for Australia, 1932-33 to 1936-37.* Comparative statistics for the five years are shown in the following table:—

HOSIERY AND OTHER KNITTED GOODS.—AUSTRALIA.

Items.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Number of factories ..	312	320	310	314	297
Number of persons engaged ..	13,884	13,950	14,493	15,692	16,032
Value of land and buildings ..	£ 1,708,066	£ 1,668,748	£ 1,676,897	£ 1,791,583	£ 1,842,228
Value of plant and machinery ..	£ 1,093,711	£ 1,620,528	£ 1,681,979	£ 1,711,530	£ 1,001,024
Wages paid ..	£ 1,579,623	£ 1,592,378	£ 1,624,414	£ 1,819,205	£ 2,017,903
Value of fuel used ..	£ 101,822	£ 100,989	£ 107,812	£ 113,773	£ 110,334
Value of materials used ..	£ 3,321,222	£ 3,420,858	£ 3,506,659	£ 3,768,336	£ 3,978,863
Total value of output ..	£ 6,272,318	£ 6,651,293	£ 6,561,114	£ 7,327,303	£ 7,700,079
Value of production ..	£ 2,849,274	£ 3,129,446	£ 2,946,643	£ 3,445,254	£ 3,610,882

(iii) *Raw Material used and Production, 1936-37.* The main raw materials consumed in establishments manufacturing hosiery and knitted goods during the year 1936-37 consisted of woollen yarn, 5,647,665 lb.; cotton yarn, 5,334,953 lb.; silk, 979,175 lb.; and artificial silk, 5,267,400 lb. Production comprised 27,607,000 garments, valued at £3,543,229; 1,884,680 dozen pairs of stockings, valued at £2,453,122; and 1,585,782 dozen pairs of socks valued at £1,037,692.

15. *Tanning, Currying and Leather Dressing.*—(i) *Details for each State, 1936-37.* In Class VII. the most important industry is tanning. Formerly the production of tanneries in Australia was confined to the coarser sorts of leathers, but there are now very few kinds which cannot be produced locally, and an export trade has been built up in some varieties.

TANNING, CURRYING AND LEATHER DRESSING, 1936-37.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W.A.	Tas.	Australia
Number of factories ..	62	41	14	6	8	1	132
Number of persons engaged ..	1,523	2,460	346	43	00	5	4,407
Value of land and buildings ..	£ 284,859	£ 418,191	£ 33,502	£ 9,128	(a)	(a)	£ 785,191
Value of plant and machinery ..	£ 201,001	£ 241,453	£ 30,103	£ 1,359	(a)	(a)	£ 504,216
Wages paid ..	£ 301,895	£ 470,556	£ 62,003	£ 6,481	(a)	(a)	£ 858,610
Value of fuel used ..	£ 28,294	£ 49,036	£ 5,702	£ 592	(a)	(a)	£ 85,330
Value of materials used ..	£ 1,441,748	£ 1,645,808	£ 295,045	£ 22,186	(a)	(a)	£ 3,478,457
Total value of output ..	£ 2,020,925	£ 2,517,926	£ 406,002	£ 34,065	(a)	(a)	£ 5,001,033
Value of production ..	£ 559,883	£ 823,082	£ 105,255	£ 11,287	(a)	(a)	£ 1,527,246

(a) Particulars not available for publication.

(b) Including Western Australia and Tasmania.

(ii) *Total for Australia, 1932-33 to 1936-37.* The development of the tanning industry during the years stated is shown in the following table :—

TANNING, CURRYING AND LEATHER DRESSING.—AUSTRALIA.

Items.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Number of factories	147	153	143	135	132
Number of persons engaged	3,760	4,039	4,142	4,433	4,467
Value of land and buildings	£ 776,532	766,014	774,393	748,897	785,191
Value of plant and machinery	£ 506,920	504,214	506,190	513,872	504,296
Wages paid	£ 652,574	659,870	723,711	810,742	858,610
Value of fuel used	£ 81,110	81,615	82,244	84,682	85,330
Value of materials used	£ 2,451,725	2,818,421	2,764,343	3,099,679	3,478,457
Total value of output	£ 3,688,550	4,110,056	4,080,442	4,632,662	5,091,033
Value of production	£ 1,155,709	1,210,020	1,233,855	1,448,301	1,527,246

(iii) *Raw Material Used and Production, 1936-37.* The quantities of raw material used and leather produced in tanneries in each State are shown in the following table :—

TANNERIES.—RAW MATERIAL USED AND PRODUCTION, 1936-37.

Particulars.			N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Hides ..	No.		628,657	924,415	138,685	17,298	41,832	3,000	1,753,887
Skins—									
Calf ..	..		457,692	334,578	172,187	879	368	..	965,704
Goat ..	..		580,680	516,019	(a)	411	(a)	..	b 1,108,360
Sheep ..	..		1,174,924	86,277	(a)	149,209	(a)	..	b 1,468,512
Marsupial ..	..		9,495	30,898	38,732	2,224	5,648	..	86,997
Reptile ..	..		..	5,559	..	..	..	..	5,559
Other pelts treated	..		2,183,977	473,590	(a)	..	(a)	..	b 2,891,677
Bark used—									
Wattle ..	ton		8,651	8,740	1,787	266	283	20	19,747
Other ..	..		580	1,819	5	7	434	..	2,845
Tanning extract used	lb.		4,840,640	1,202,332	778,305	6,160	746,006	11,200	7,584,643
Leather made—									
Sole ..	..		10,188,190	12,808,892	2,371,984	(a)	1,491,904	(a)	b 27,172,256
Harness ..	..		622,254	388,390	438,225	77,819	118,549	..	1,645,237
Upholstery ..	sq. ft.		2,430,465	5,254,660	..	..	..	..	7,685,134
Patent and other	..		6,945,860	13,783,401	1,514,411	247,035	133,892	..	22,624,599
Waxed kip and other lb.	..		(a)	91,303	97,074	143,790	82,642	(a)	553,417
Dressed from skins—									
Calf ..	sq. ft.		4,024,763	2,686,910	1,660,901	2,325	11,948	..	8,395,847
Goat ..	..		2,571,048	2,094,080	(a)	2,780	(a)	..	b 4,744,872
Sheep ..	..		11,135,968	2,270,808	(a)	886,843	(a)	..	14,881,434
Marsupial ..	..		16,429	121,725	207,646	1,312	16,379	..	363,491

(a) Not available for publication.

(b) Including particulars for States marked (a).

16. *Boot Factories.*—(i) *Boot and Shoe Factories, 1936-37.* The boot and shoe industry holds an important place in regard to employment afforded and extent of output. The operations of these factories have been rather obscured in recent years by the inclusion of a large number of repair establishments in the returns, but this difficulty has been overcome by the collection of separate statistics for each industry, and in the following table the details relate to boot and shoe factories as distinct from those devoted to repairing and bespoke work :—

BOOT AND SHOE FACTORIES, 1936-37.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories	92	165	22	16	13	4	312
Number of persons engaged	5,292	9,362	878	545	348	72	16,497
Value of land and buildings	£ 423,776	607,099	62,630	72,417	45,747	9,200	1,220,779
Value of plant and machinery	£ 225,455	438,982	93,027	23,715	23,549	6,320	811,048
Wages paid	£ 719,054	1,278,177	108,494	63,959	40,810	9,332	2,219,826
Value of fuel used	£ 15,040	30,388	2,001	1,828	1,122	272	50,651
Value of materials used	£ 1,329,117	2,440,831	194,793	111,993	89,361	15,245	4,181,340
Total value of output	£ 2,387,792	4,288,431	348,467	192,410	150,664	26,611	7,394,375
Value of production	£ 1,043,635	1,817,212	151,673	78,589	60,181	11,094	3,162,384

(ii) *Boot Repairing, including Bespoke Work.* The introduction of small power plants in repairing shops has brought this class of establishment within the meaning of a factory for statistical purposes. Shops using small power plants have spread rapidly throughout Australia, and in 1936-37 the number amounted to 1,295 in which 2,196 persons were engaged in the industry. The sum of £127,023 was distributed in salaries and wages, and the output was valued at £739,812.

(iii) *Quantity and Value of Production.* The number and value of boots, shoes and slippers made at factories in each State are shown in the following table :—

BOOT AND SHOE FACTORIES.—OUTPUT, 1936-37.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
QUANTITY.							
Boots and shoes pairs	4,613,641	8,253,084	666,293	522,253	395,126	53,983	14,504,380
Slippers ..	3,021,392	4,173,599	302,411	(b)	(b)	..	67,702,219
Uppers (a) ..	16,490	9,326	107,502	6,462	(b)	(b)	(c) 141,292
VALUE.							
Boots and shoes £	2,058,896	3,654,576	310,754	184,006	126,987	26,800	6,362,019
Slippers ..	298,650	504,245	20,701	(b)	(b)	..	(c) 852,185
Uppers (a) ..	6,436	7,370	13,845	2,063	(b)	(b)	(c) 30,517

(a) Made for other than factory use.

(b) Not available for publication.

(c) Including particulars for States marked (a).

17. *Tailoring and Slop Clothing Factories.*—(i) *Details for each State, 1936-37.*
The importance of this industry in the several States is shown in the following table :—

TAILORING AND SLOP CLOTHING FACTORIES, 1936-37.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	434	386	117	120	81	25	1,163
Number of persons engaged ..	11,405	8,153	2,689	1,919	999	381	25,546
Value of land and buildings ..	1,475,784	828,589	267,957	256,127	163,620	61,225	3,053,302
Value of plant and machinery ..	129,596	126,100	25,260	19,599	13,316	3,941	317,812
Wages paid ..	1,206,906	923,183	262,333	184,827	112,143	42,821	2,732,213
Value of fuel used ..	23,284	23,122	6,194	5,209	2,591	697	61,097
Value of materials used ..	1,953,178	1,990,235	455,892	197,627	153,024	46,368	4,796,324
Total value of output ..	3,813,890	3,449,824	938,704	482,881	341,762	111,241	9,138,302
Value of production ..	1,837,428	1,436,467	476,618	280,945	186,147	64,176	4,280,881

(ii) *Total for Australia, 1932-33 to 1936-37.* Details for the last five years are as follows :—

TAILORING AND SLOP CLOTHING FACTORIES.—AUSTRALIA.

Items.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Number of factories ..	1,019	1,040	1,115	1,157	1,163
Number of persons engaged ..	18,681	20,951	23,579	24,877	25,546
Value of land and buildings ..	2,493,180	2,516,492	2,770,968	2,885,076	3,053,302
Value of plant and machinery ..	257,416	273,000	310,908	327,333	317,812
Wages paid ..	1,895,349	2,126,826	2,446,420	2,578,597	2,732,213
Value of fuel used ..	48,831	51,887	56,857	58,556	61,097
Value of materials used ..	3,635,773	4,112,707	4,573,477	4,826,010	4,796,324
Total value of output ..	6,653,256	7,627,067	8,407,294	8,930,837	9,138,302
Value of production ..	2,968,652	3,462,473	3,776,960	4,055,271	4,280,881

18. Dressmaking and Millinery Establishments.—(i) *Details for each State, 1936-37.* Particulars of dressmaking and millinery establishments are given separately in the following tables :—

DRESSMAKING ESTABLISHMENTS, 1936-37.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number of factories ..	107	442	33	46	46	7	651
Number of persons engaged ..	1,511	8,039	774	832	681	46	11,883
Value of land and buildings ..	227,105	1,112,748	65,603	70,708	82,527	4,360	1,563,051
Value of plant and machinery ..	10,366	27,447	8,612	2,723	2,808	345	176,310
Wages paid ..	133,336	787,439	64,646	55,962	53,941	3,204	1,098,528
Value of fuel used ..	1,096	15,651	1,088	1,436	1,218	36	21,125
Value of materials used ..	118,543	1,605,792	112,260	65,966	67,702	1,556	1,971,819
Total value of output ..	318,547	2,801,862	221,517	153,057	149,368	6,148	3,740,499
Value of production ..	198,308	1,270,419	108,169	85,655	80,448	4,556	1,747,555

(a) Includes Millinery.

MILLINERY ESTABLISHMENTS, 1936-37.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number of factories ..	59	61	12	8	9	..	149
Number of persons engaged ..	1,537	1,387	439	304	85	..	3,752
Value of land and buildings ..	251,390	146,718	37,159	19,745	13,205	..	468,226
Value of plant and machinery ..	15,786	18,484	5,644	2,608	867	..	43,389
Wages paid ..	139,371	136,002	34,720	24,662	7,943	..	342,695
Value of fuel used ..	4,275	3,266	647	718	147	..	9,053
Value of materials used ..	286,971	198,420	50,380	37,718	12,304	..	585,793
Total value of output ..	580,188	426,836	105,241	79,933	23,937	..	1,225,135
Value of production ..	297,942	225,150	54,214	41,497	11,486	..	630,289

(a) Included in Dressmaking.

(ii) *Total for Australia, 1932-33 to 1936-37.* Particulars of dressmaking and millinery establishments in Australia for the last five years are shown in the following table :—

DRESSMAKING AND MILLINERY ESTABLISHMENTS.—AUSTRALIA.

Items.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Number of factories ..	764	812	854	863	830
Number of persons engaged ..	13,455	14,212	15,166	15,683	15,635
Value of land and buildings ..	1,710,482	1,795,265	1,898,295	1,897,903	2,031,277
Value of plant and machinery ..	171,217	176,845	177,241	180,934	179,699
Wages paid ..	1,187,875	1,237,581	1,316,645	1,391,348	1,441,226
Value of fuel used ..	24,717	27,205	28,225	30,245	30,178
Value of materials used ..	2,354,141	2,327,141	2,439,034	2,559,119	2,557,612
Total value of output ..	4,238,509	4,298,999	4,534,059	4,869,311	4,965,634
Value of production ..	1,859,651	1,944,653	2,066,800	2,279,947	2,377,844

19. **Shirts, Collars and Underclothing.**—(i) *Details for each State, 1936-37.* Particulars of this industry are shown in the subjoined table:—

SHIRTS, COLLARS AND UNDERCLOTHING, 1936-37.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.A.	Tas. (c)	Australia.
Number of factories ..	121	118	18	27	13	1	298
Number of persons engaged ..	4,365	4,918	894	494	442	3	11,116
Value of land and buildings ..	£ 311,158	£ 439,941	£ 55,808	£ 39,345	(a)	(a)	£ 871,522
Value of plant and machinery ..	£ 70,997	£ 159,352	£ 11,508	£ 7,919	(a)	(a)	£ 251,396
Wages paid ..	£ 361,125	£ 497,232	£ 69,996	£ 37,557	(a)	(a)	£ 1,029,221
Value of fuel used ..	£ 7,516	£ 12,075	£ 1,370	£ 1,170	(a)	(a)	£ 23,662
Value of materials used ..	£ 1,058,542	£ 1,259,683	£ 183,417	£ 49,101	(a)	(a)	£ 2,599,519
Total value of output ..	£ 1,654,243	£ 2,100,399	£ 287,482	£ 104,205	(a)	(a)	£ 4,252,677
Value of production ..	£ 588,185	£ 839,741	£ 102,665	£ 53,925	(a)	(a)	£ 1,629,466

(a) Particulars not available for publication. (b) Including Western Australia and Tasmania.
(c) Includes Handkerchiefs, Ties and Scarves.

(ii) *Total for Australia, 1932-33 to 1936-37.* The following table shows the progress of the industry since 1936-37:—

SHIRTS, COLLARS AND UNDERCLOTHING.—AUSTRALIA.

Items.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Number of factories ..	294	307	314	308	298
Number of persons engaged ..	9,608	10,444	10,925	11,214	11,116
Value of land and buildings ..	£ 810,630	£ 836,669	£ 872,923	£ 842,896	£ 871,522
Value of plant and machinery ..	£ 214,796	£ 224,827	£ 235,346	£ 253,736	£ 251,396
Wages paid ..	£ 822,985	£ 859,459	£ 929,192	£ 1,001,615	£ 1,029,221
Value of fuel used ..	£ 21,430	£ 22,812	£ 22,947	£ 22,844	£ 23,662
Value of materials used ..	£ 2,278,086	£ 2,506,226	£ 2,663,522	£ 2,708,887	£ 2,599,519
Total value of output ..	£ 3,623,179	£ 3,979,371	£ 4,174,304	£ 4,311,566	£ 4,252,677
Value of production ..	£ 1,323,603	£ 1,359,533	£ 1,487,835	£ 1,579,835	£ 1,629,466

20. **Bacon-curing Factories.**—(i) *Details for each State, 1936-37.* The table hereunder gives particulars of factories engaged in bacon-curing in each State for the year 1936-37:—

BACON-CURING FACTORIES, 1936-37.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus- tralia.
Number of factories ..	23	20	10	8	10	2	73
Number of persons engaged ..	355	554	677	249	c	54	1,988
Value of land and buildings ..	£ 145,163	£ 235,293	£ 221,840	£ 86,817	£ 77,441	£ 16,207	£ 731,761
Value of plant and machinery ..	£ 63,987	£ 125,027	£ 117,171	£ 52,111	£ 13,358	£ 9,571	£ 357,626
Wages paid ..	£ 87,489	£ 115,618	£ 117,171	£ 52,356	£ 23,046	£ 9,384	£ 434,355
Value of fuel used ..	£ 12,367	£ 20,341	£ 26,414	£ 7,765	£ 3,755	£ 1,251	£ 71,906
Value of materials used ..	£ 701,748	£ 793,995	£ 1,017,231	£ 375,475	£ 202,533	£ 65,101	£ 3,246,093
Total value of output ..	£ 1,115,802	£ 985,645	£ 1,316,926	£ 472,258	£ 243,699	£ 87,077	£ 4,121,467
Value of production ..	£ 211,737	£ 171,296	£ 273,281	£ 89,018	£ 37,411	£ 20,725	£ 803,468

(ii) *Quantity and Value of Production.* The number of pigs cured and the quantity and value of the production of bacon-curing factories in each State for the year 1936-37 are given hereafter:—

BACON-CURING FACTORIES.—PIGS CURED, AND PRODUCTION, 1936-37.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
PIGS CURED.							
Number	257,041	192,002	251,189	80,241	46,373	20,575	847,421
PRODUCTS.							
Bacon and ham .. '000 lb.	21,255	16,653	20,002	7,140	3,985	1,661	70,696
Lard	764	873	1,171	257	258	94	3,417
VALUE.							
Bacon and ham .. £	500,000	756,822	781,006	311,032	166,360	106,578	2,578,401
Lard £	19,094	28,448	29,194	7,364	7,596	2,936	94,632
Other products .. £	112,090	163,349	535,188	150,263	43,633	12,403	1,016,926

Bacon and ham and other pig products are dealt with more fully in Chapter XXI. "Farmyard, Dairy and Bee Products."

21. Butter, Cheese and Condensed Milk Factories.—(i) *Details for each State, 1936-37.* The subjoined table gives particulars of butter, cheese and condensed milk factories in each State during the year 1936-37:—

BUTTER, CHEESE AND CONDENSED MILK FACTORIES, 1936-37.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.A.	Tas.	Australia.
Number of factories ..	130	175	102	44	23	43	517
Number of persons engaged ..	1,444	2,859	1,037	451	210	225	6,226
Value of land and buildings .. £	648,231	1,158,068	598,948	171,280	85,056	71,600	2,733,273
Value of plant and machinery .. £	762,370	1,157,697	742,742	116,633	92,500	66,162	2,938,110
Wages paid £	333,303	617,532	225,384	82,637	41,896	32,159	1,332,911
Value of fuel used £	83,084	168,712	46,056	19,498	11,439	6,062	335,451
Value of materials used £	5,857,873	9,173,751	4,600,118	1,190,185	634,827	448,982	21,995,736
Total value of output £	6,661,823	10,835,083	5,221,522	1,433,022	780,132	500,990	25,434,496
Value of production £	680,868	1,482,540	487,746	226,343	119,866	105,946	3,103,309

(ii) *Total for Australia, 1932-33 to 1936-37.* The progress of this industry during the last five years is set out hereunder:—

BUTTER, CHEESE AND CONDENSED MILK FACTORIES.—AUSTRALIA.

Items.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Number of factories ..	520	531	544	517	517
Number of persons engaged ..	5,793	5,967	6,151	6,062	6,226
Value of land and buildings .. £	2,533,118	2,577,118	2,676,760	2,635,863	2,733,273
Value of plant and machinery .. £	2,749,218	2,775,355	2,779,468	2,849,645	2,938,110
Wages paid £	1,179,007	1,202,397	1,251,418	1,265,898	1,332,911
Value of fuel used £	311,254	311,261	320,073	310,260	335,451
Value of materials used £	17,996,224	17,387,974	20,182,321	22,627,448	21,995,736
Total value of output £	21,035,008	20,809,678	23,376,685	25,869,089	25,434,496
Value of production £	2,728,490	3,110,443	2,874,291	2,931,381	3,103,309

(iii) *Quantity and Value of Production.* The next table shows the quantities and values of butter, cheese and condensed milk produced, and the quantities of milk used in butter, cheese and condensed milk factories in each State for the year 1936-37:—

BUTTER, CHEESE AND CONDENSED MILK FACTORIES.—PRODUCTION, 1936-37.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
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MILK USED (,000 OMITTED).

Butter factories .. gals.	219,526	295,488	174,236	32,389	21,081	16,755	759,475
Cheese factories .. "	7,308	13,108	7,567	11,416	997	2,901	43,297
Condensed milk factories .. "	3,923	28,837	..	626	616	..	34,002

PRODUCTS (,000 OMITTED).

Butter lb.	103,975	149,898	84,401	17,131	10,642	8,149	374,196
Cheese "	7,145	13,041	7,772	12,165	1,010	2,834	43,967
Condensed and concentrated milk lb.	6,306	31,752	..	2,467	2,123	..	42,648
Powdered milk "	1,527	16,257	..	..	..	..	17,784

VALUE (,000 OMITTED).

Butter £	5,917	8,370	4,797	940	656	453	21,133
Cheese £	314	432	251	394	37	89	1,517
Condensed and concentrated milk £	145	660	..	65	53	..	932
Powdered milk £	68	418	..	..	..	..	486

The butter, cheese and condensed milk industries are dealt with more fully in Chapter XXI. "Farmyard, Dairy and Bee Products."

22. *Meat and Fish Preserving Works.*—The industries included in this group are engaged chiefly in the freezing and preserving of meat. Works have been established at the seaports for the purpose of handling frozen beef, lamb and mutton for export, while insulated space for the carriage of frozen produce is provided by steamship companies trading between Australia and other parts of the world. The substitution of the export of chilled for frozen meat has already been referred to in Chapter XIX. "Pastoral Production."

MEAT AND FISH PRESERVING WORKS,(a) 1936-37.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories	7	8	12	..	5	..	32
Number of persons engaged	194	212	2,477	..	159	..	3,042
Value of land and buildings £	63,210	54,398	1,261,566	..	379,174	..	1,758,348
Value of plant and machinery £	19,579	17,739	744,316	..	396,186	..	1,277,820
Wages paid	35,804	31,147	767,511	..	55,142	..	889,604
Value of fuel used	5,307	3,638	109,630	..	6,619	..	125,194
Value of materials used	124,138	204,129	4,462,091	..	134,072	..	4,924,430
Total value of output	183,232	309,959	5,808,846	..	215,174	..	6,517,211
Value of production	53,787	102,192	1,237,125	..	74,483	..	1,467,587

(a) Including meat extracts.

Particulars regarding the quantities and values of beef, mutton and lamb preserved by cold process exported from Australia over a series of years will be found in Chapter XIX. "Pastoral Production."

23. **Bakeries.**—Information regarding establishments in which the manufacture of bread, cakes, etc., was carried on in the year 1936-37 is given in the table below. It should be noted, however, that, as explained in § 1 par. 2 above the details refer to establishments coming within the definition of a factory. For that reason there are a large number of bakehouses omitted and consequently the table does not give complete details of the industry. This is true of all other industries covered by the statistics of manufacturing production but, in view of the omission of such a large number of establishments in this instance, special mention of this fact is deemed desirable.

BAKERIES (INCLUDING CAKES AND PASTRY), 1936-37.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number of factories ..	556	556	242	119	123	66	1,662
Number of persons engaged ..	3,672	3,374	1,347	834	525	1,129	10,881
Value of land and buildings ..	£ 1,891,450	£ 1,158,299	£ 473,400	£ 230,736	£ 171,074	£ 325,478	£ 4,250,437
Value of plant and machinery ..	£ 531,032	£ 377,886	£ 150,191	£ 86,324	£ 46,351	£ 82,217	£ 1,274,001
Wages paid ..	£ 665,546	£ 510,826	£ 199,147	£ 125,842	£ 78,454	£ 139,990	£ 1,719,805
Value of fuel used ..	£ 105,266	£ 87,391	£ 28,620	£ 17,554	£ 12,891	£ 14,815	£ 266,537
Value of materials used ..	£ 2,216,163	£ 1,896,072	£ 787,348	£ 478,021	£ 335,876	£ 453,932	£ 6,167,412
Total value of output ..	£ 3,772,803	£ 3,114,907	£ 1,265,798	£ 765,803	£ 532,411	£ 741,213	£ 10,192,935
Value of production ..	£ 1,451,374	£ 1,131,444	£ 449,830	£ 270,228	£ 183,644	£ 272,466	£ 3,758,986

(a) Includes Biscuits and Confectionery.

24. **Jam and Fruit Preserving, Pickles, Sauces and Vinegar Factories.**—(i) *Details for each State, 1936-37.* The subjoined table gives particulars of factories included in this class for the year 1936-37. One establishment engaged in meat preserving has been included in the details shown for Tasmania in order that confidential information may not be disclosed.

JAM AND FRUIT PRESERVING, PICKLES, ETC., FACTORIES, 1936-37.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	29	45	13	17	7	10	121
Number of persons engaged ..	1,361	2,868	477	449	68	683	5,906
Value of land and buildings ..	£ 284,136	£ 635,774	£ 38,430	£ 121,398	£ 14,491	£ 123,903	£ 1,218,132
Value of plant and machinery ..	£ 147,611	£ 326,249	£ 33,160	£ 51,834	£ 5,118	£ 34,145	£ 598,126
Wages paid ..	£ 223,360	£ 476,460	£ 68,727	£ 65,185	£ 8,707	£ 129,329	£ 971,768
Value of fuel used ..	£ 20,436	£ 42,893	£ 5,473	£ 6,009	£ 903	£ 11,305	£ 87,019
Value of materials used ..	£ 1,015,280	£ 1,932,601	£ 452,171	£ 234,983	£ 34,108	£ 508,649	£ 4,177,792
Total value of output ..	£ 1,620,019	£ 3,023,101	£ 570,195	£ 367,620	£ 54,753	£ 662,954	£ 6,298,642
Value of production ..	£ 584,393	£ 1,047,607	£ 112,551	£ 126,628	£ 19,742	£ 143,000	£ 2,033,831

(ii) *Total for Australia, 1932-33 to 1936-37.* Particulars in connexion with these establishments in Australia for the last five years are given hereunder:—

JAM AND FRUIT PRESERVING, PICKLES, ETC., FACTORIES.—AUSTRALIA.

Items.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Number of factories ..	115	120	122	125	121
Number of persons engaged ..	4,786	4,895	5,213	5,773	5,906
Value of land and buildings ..	£ 1,025,310	£ 1,032,409	£ 1,103,291	£ 1,125,204	£ 1,218,132
Value of plant and machinery ..	£ 525,057	£ 525,199	£ 521,800	£ 549,413	£ 598,126
Wages paid ..	£ 709,572	£ 722,265	£ 795,621	£ 929,792	£ 971,768
Value of fuel used ..	£ 66,231	£ 65,724	£ 78,144	£ 89,227	£ 87,019
Value of materials used ..	£ 3,185,285	£ 2,831,602	£ 3,122,257	£ 3,965,338	£ 4,177,792
Total value of output ..	£ 4,019,037	£ 4,631,037	£ 5,428,876	£ 6,276,112	£ 6,298,642
Value of production ..	£ 1,667,521	£ 1,737,633	£ 2,038,475	£ 2,221,547	£ 2,033,831

INDIVIDUAL INDUSTRIES.

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The progress of the jam-making industry was very marked during the war years, when large quantities were exported overseas for the supply of army requirements. In the year 1918-19 the production amounted to 142,290,000 lb. but with the termination of the war, the quantity declined to 90,140,000 lb. in 1920-21. During the succeeding years the production of jam varied considerably, falling to 66,120,000 lb in 1930-31 and subsequently improving to 90,302,000 lb. in 1935-36 only to fall again in 1936-37 to 74,708,000 lb. In 1936-37 the output of preserved fruit reached the record figure of 127,498,000 lb., nearly 11,000,000 lb. in excess of the previous maximum in 1935-36. The production of pickles and sauces again showed a satisfactory improvement.

(iii) *Production.* The following table shows the quantity and value of jams, pickles and sauces manufactured in each State in 1936-37:—

JAMS, PRESERVED FRUIT, PICKLES AND SAUCES.—OUTPUT, 1936-37.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
QUANTITY (,000 OMITTED).							
Jams and Jellies .. lb.	21,407	36,339	6,901	7,568	775	1,718	74,708
Fruit Pulp .. "	17	9,234	600	4,474	913	8,874	24,112
Tomato Pulp .. "	2,046	22,996	104	2,611	1,338	600	29,605
Fruit, preserved .. "	28,394	75,833	15,536	4,380	55	3,300	127,498
Pickles .. pints	1,393	2,190	510	1,354	48	48	5,543
Sauces .. "	6,902	8,411	644	2,153	499	54	18,663

VALUE.

Jams and Jellies .. £	469,078	754,450	146,346	132,980	14,633	385,340	1,902,827
Fruit, preserved .. £	438,172	1,207,377	352,698	78,989	854	88,161	2,166,231
Pickles .. £	54,838	78,832	20,257	52,876	5,737	1,732	214,272
Sauces .. £	342,845	261,586	19,782	63,614	18,320	1,191	707,338

25. *Confectionery Factories.*—(i) *Details for each State, 1936-37.* At the close of the year 1900 there were in New South Wales 16 establishments with 700 persons engaged and in Victoria 16 establishments, employing 731 persons, the plant and machinery in the former State being valued at £2,815, and in the latter at £10,070. The figures for the year 1936-37 given hereunder show the remarkable development since 1900:—

SUGAR CONFECTIONERY FACTORIES.(b) 1936-37.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number of factories ..	66	94	19	19	13	3	214
Number of persons engaged ..	3,621	3,093	597	379	274	11	7,975
Value of land and buildings ..	994,731	571,591	192,637	80,792	58,898	3,410	1,902,059
Value of plant and machinery ..	995,882	531,108	112,282	65,844	64,881	3,181	1,773,178
Wages paid ..	460,601	481,473	42,241	42,202	35,278	1,626	1,063,421
Value of fuel used ..	47,751	37,586	3,400	6,037	3,912	85	98,771
Value of materials used ..	1,533,608	1,335,545	136,678	110,635	83,977	1,882	3,202,325
Total value of output ..	2,831,836	2,165,198	204,708	191,027	176,269	4,110	5,573,148
Value of production ..	1,250,477	792,067	64,630	74,355	88,380	2,143	2,272,052

(a) Ice Cream factories—Other Confectionery included in Bakeries and Ice Cream.

(b) Including Chocolate

(ii) *Total for Australia, 1932-33 to 1936-37.* Particulars of the confectionery industry during the last five years are shown in the following table :—

SUGAR CONFECTIONERY FACTORIES.—AUSTRALIA.

Items.	1932-33 (a)	1933-34. (a)	1934-35. (a)	1935-36. (a)	1936-37. (a)
Number of factories	221	214	218	217	214
Number of persons engaged	6,375	6,698	7,158	7,516	7,975
Value of land and buildings	£ 1,737,550	1,694,606	1,721,645	1,774,452	1,902,059
Value of plant and machinery	£ 1,738,497	1,686,517	1,749,349	1,712,163	1,773,178
Wages paid	£ 857,503	898,592	935,214	1,010,775	1,063,421
Value of fuel used	£ 108,489	112,681	112,050	117,041	98,771
Value of materials used	£ 2,409,145	2,518,756	2,743,763	3,023,696	3,202,325
Total value of output	£ 4,473,075	4,734,105	5,120,164	5,662,146	5,573,148
Value of production	£ 1,955,441	2,102,668	2,264,342	2,521,409	2,272,052

(a) See notes to previous table.

The confectionery industry expanded rapidly during the war years largely as a result of the stimulus afforded by the embargo placed on the importation of luxuries during that period. The industry, however, was seriously affected by the business depression but has now regained its former position. Confectionery establishments in Tasmania have been combined with bakeries in order to conceal confidential information. Production is sufficient to supply local requirements, and an export trade is being developed. Several large British manufacturers of confectionery have established branch works in Australia.

26. *Grain Milling.*—(i) *Details for States, 1936-37.* The following table shows the position of the flour-milling industry in each State in 1936-37 :—

* GRAIN MILLING, 1936-37.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust. (a)	W. Aust.	Tas. (a)	Australia.
Number of factories	49	38	10	39	20	10	166
Number of persons engaged	1,193	1,112	347	417	397	114	3,580
Value of land and buildings £	807,409	545,587	193,787	167,681	242,641	70,241	2,028,346
Value of plant and machinery £	677,807	508,072	185,201	224,236	222,341	30,649	1,848,306
Wages paid	£ 281,006	243,213	83,333	83,103	87,696	23,945	802,296
Value of fuel used	£ 71,089	61,668	14,573	26,218	23,408	3,637	201,193
Value of materials used	£ 5,220,035	5,000,744	1,123,843	1,436,435	1,544,299	295,932	14,621,288
Total value of output	£ 6,085,342	5,574,290	1,347,824	1,625,894	1,872,079	344,565	16,849,094
Value of production	£ 793,618	511,878	209,408	163,241	304,372	44,996	2,027,513

(a) The manufacture of cornflour, oatmeal, etc, was also carried on in some of these establishments.

(ii) *Productions of Flour and By-products, 1932-33 to 1936-37.* The production of flour by the mills in each State for the years indicated was as follows :—

GRAIN MILLING.—PRODUCTION OF FLOUR.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	Tons.(a)	Tons.(a)	Tons.(a)	Tons.(a)	Tons.(a)	Tons.(a)	Tons.(a)
1932-33 ..	525,651	425,930	91,498	129,225	127,574	19,372	1,319,250
1933-34 ..	495,779	395,566	84,159	121,811	122,000	19,253	1,238,568
1934-35 ..	555,173	437,262	86,246	139,716	124,130	19,260	1,358,787
1935-36 ..	523,281	435,340	86,142	124,021	118,340	20,492	1,307,616
1936-37 ..	464,498	420,304	82,423	119,192	122,723	19,579	1,228,779

(a) Tons of 2,000 lb.

The production of flour in Australia for the last year, 1,228,779 tons, was valued at £13,194,866. In addition, 519,187 tons of bran and pollard, valued at £3,246,824, were made. The quantity of wheat ground was 59,169,864 bushels.

27. **Sugar Mills.**—(i) *Details for 1936-37.* The following table shows the position of the cane-crushing branch of the sugar-making industry in New South Wales and Queensland in 1936-37. Sugar-cane is not grown in the other States. Details regarding the area, yield, etc., of sugar-cane will be found in Chapter XX. "Agricultural Production."

SUGAR MILLS, 1936-37.

Items.	N.S.W.	Queensland.	Australia.
Number of factories	3	33	36
Number of persons engaged	195	4,381	4,576
Value of land and buildings £	230,000	1,026,967	1,256,967
Value of plant and machinery £	924,339	7,522,632	8,446,971
Wages paid £	81,424	1,227,697	1,309,121
Value of fuel used £	13,814	124,491	138,305
Value of materials used £	466,747	8,722,953	9,189,700
Total value of output £	690,634	11,026,276	11,716,910
Value of production £	210,073	2,178,832	2,388,905

The products of the sugar mill are raw sugar and molasses, the former being sent to the refineries in different parts of Australia for further treatment. Part of the molasses produced is used for distillation, part is prepared for human consumption, part is turned into food-cake for cattle, part is used for manuring land, and the balance is either burnt as fuel or for sale to waste. This latter quantity, however, is being reduced each year.

(ii) *Progress of Industry.* (a) *New South Wales.* The following table shows the progress which has been made in this industry in New South Wales since 1911 :—

SUGAR MILLS.—NEW SOUTH WALES.

Items.	1911.	1933-34.	1934-35.	1935-36.	1936-37.
Number of factories ..	4	3	3	3	3
Number of employees ..	469	135	144	198	195
Cane crushed .. tons	147,799	230,918	227,424	280,472	275,169
Sugar produced .. "	17,299	27,586	29,428	36,461	38,158
Molasses produced gals	796,440	1,163,700	1,059,555	1,390,180	11,329,660

The concentration of cane-crushing in establishments fitted with modern machinery has caused the closing of the small home mill and thereby reduced the number of mills operating. The Government assistance, referred to in the chapter dealing with Agriculture, has resulted in considerable progress in the cultivation of sugar-cane and increased activity in milling. Particulars regarding cane crushed and sugar produced embodied in these tables refer to the quantities treated during the twelve months ending 30th June in each year, irrespective of the season in which the cane was grown; consequently the figures relating to cane crushed and sugar produced differ slightly from those given in Chapter XX. "Agriculture" which relate to harvest years.

(b) *Queensland.* Details for Queensland for 1911 and the last four years are given hereunder :—

SUGAR MILLS.—QUEENSLAND, 1911 TO 1936-37.

Items.	1911.	1933-34.	1934-35.	1935-36.	1936-37.
Number of factories ..	49	33	33	51	33
Number of persons engaged ..	4,295	5,132	4,136	4,176	4,381
Cane crushed .. tons	1,534,451	4,667,122	4,271,380	4,220,435	5,170,571
Sugar produced .. "	173,296	638,559	611,161	610,080	744,676
Molasses—					
Sold to distillers					
and others .. gals.	2,393,669	4,448,494	5,017,717	4,792,950	6,086,864
Used as fodder .. "	789,564	2,902,188	3,035,598	3,817,755	4,351,822
Used as manure .. "	223,000	1,793,101	2,227,905	2,559,528	3,211,423
Run to waste .. "					
Burnt as fuel .. "	1,847,333	1,747,365	1,102,715	1,214,078	560,326
Sold or used for other purposes .. "		7,348,015	5,339,489	4,103,475	6,354,841
In stock .. "	1,197,626	634,022	1,673,607		397,080
Total molasses .. "	6,451,192	18,873,185	18,457,031	16,488,386	20,962,356

28. *Sugar Refineries.*—The establishment of the sugar-refining industry considerably antedates the establishment of the sugar-milling industry, the raw material operated on in the earlier years coming chiefly from Mauritius and the East. In 1936-37 there were two sugar refineries in each of the States of Victoria and Queensland, and one in each of the States of New South Wales, South Australia and Western Australia. The quantity of raw sugar treated amounted to 335,169 tons, for a yield of 323,773 tons of refined sugar, valued at £10,438,851.

29. *Breweries.*—(i) *Details for each State, 1936-37.* The following table gives particulars concerning breweries in each State :—

BREWERIES, 1936-37.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia. "
Number of breweries ..	6	9	7	6	5	4	37
Number of persons engaged ..	935	1,325	391	246	408	84	3,389
Value of land and buildings .. £	911,038	766,377	387,338	181,399	118,008	173,762	2,537,922
Value of plant and machinery .. £	785,003	842,958	318,554	192,859	214,184	101,018	2,454,576
Wages paid .. £	263,323	455,912	118,580	82,915	127,819	23,514	1,072,063
Value of fuel used .. £	73,876	72,136	27,175	15,936	18,389	6,760	214,272
Value of materials used .. £	750,505	1,081,801	253,484	170,347	270,155	80,053	2,642,395
Total value of output .. £	1,805,112	2,499,494	735,001	470,999	751,472	187,798	7,450,136
Value of production .. £	1,960,841	2,345,467	455,032	283,816	453,928	100,385	4,599,469

(a) Includes Malt Works.

(ii) *Total for Australia 1932-33 to 1936-37.* The next table shows the extent of this industry for the last five years :—

BREWERIES.—AUSTRALIA.

Items.	1932-33. (a)	1933-34. (a)	1934-35. (a)	1935-36. (a)	1936-37. (a)
Number of breweries ..	41	42	41	37	37
Number of persons engaged ..	2,888	2,995	3,097	3,228	3,389
Value of land and buildings .. £	2,375,417	2,423,574	2,411,446	2,420,415	2,537,922
Value of plant and machinery .. £	2,535,431	2,507,550	2,476,000	2,440,700	2,454,576
Wages paid .. £	858,371	886,597	952,127	1,018,985	1,072,063
Value of fuel used .. £	183,428	180,002	104,863	202,367	214,272
Value of materials used .. £	1,905,147	2,011,957	2,264,174	2,552,497	2,642,395
Total value of output .. £	5,235,923	5,625,876	6,139,227	7,121,046	7,450,136
Value of production .. £	3,147,348	3,424,017	3,802,190	4,367,082	4,599,469

(a) Includes Malt Works in Tasmania.

The quantity of ale and stout brewed fell from 73.7 million gallons in 1928-29 to 49.8 million gallons in 1931-32, but thereafter the production increased each year to 74,178,366 gallons in 1936-37. For a number of years prior to the depression the consumption of ale and stout exceeded 11 gallons per head of the population; it dropped to 7.32 gallons in 1931-32, but has now advanced to 10.34 gallons.

(iii) *Materials Used and Production.* The table below shows the quantities of raw material used and the quantity and value of ale and stout brewed in each State as furnished by the Excise Branch of the Department of Trade and Customs during the year 1936-37.

BREWERIES.—MATERIALS USED AND PRODUCTION, 1936-37.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
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RAW MATERIAL USED.

Malt .. bushels	860,735	863,330	241,349	180,558	289,025	63,364	2,507,361
Hops .. lb.	758,681	746,794	197,991	174,216	188,390	42,320	2,108,392
Sugar .. cwt.	103,680	106,040	24,760	21,740	7,840	4,960	269,020

RAW MATERIAL USED PER 1,000 GALLONS OF ALE AND STOUT PRODUCED.

Malt .. bushels	32.50	32.37	35.38	31.85	43.29	40.15	33.80
Hops .. lb.	28.35	27.98	29.02	30.74	28.22	26.82	28.42
Sugar .. cwt.	3.87	3.98	3.63	3.84	1.17	3.14	3.63

ALE AND STOUT BREWED.

Quantity gallons	26,760,536	26,673,823	6,822,073	5,668,392	6,675,676	1,577,866	74,178,366
Value (a) £	2,783,082	2,774,064	735,437	472,209	664,886	174,322	7,604,000

(a) Exclusive of Excise duty.

30. *Distilleries.*—Distilleries are located in all the States with the exception of Western Australia and Tasmania. The following information, which has been extracted from returns furnished by the Excise Branch of the Department of Trade and Customs, shows the materials used in distilleries in Australia and the quantity of spirits distilled therefrom for the year 1936-37:—Materials used: barley, 67,177 bushels; barley malt 49,700 bushels; molasses 1,120,308 cwt.; wine 13,553,628 gallons; raisins and currants 34,115 cwt.; grapes 101,563 cwt. The quantity of spirits distilled from barley, malt and grain was 289,091 gallons; from molasses 5,838,466 gallons; and from wine 2,537,706 gallons; other materials 465 gallons, total 8,665,728 gallons. The quantity of spirits denatured during the year was 3,709,055 gallons.

31. *Tobacco, etc., Factories.*—(i) *Details for each State, 1936-37.* During the year 1936-37 there were thirty-one establishments in which the manufacture of tobacco, cigars, or cigarettes was carried on. There were no tobacco factories in Tasmania.

TOBACCO, CIGAR AND CIGARETTE FACTORIES, 1936-37.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Australia.
Number of factories ..	9	15	6	1	1	32
Number of persons engaged ..	3,214	2,019	53	16	145	5,447
Value of land and buildings ..	£ 632,652	325,071	(a)	(a)	(a)	b 1,001,236
Value of plant and machinery ..	£ 524,196	268,029	(a)	(a)	(a)	b 870,430
Wages paid ..	£ 592,927	378,076	(a)	(a)	(a)	b 996,665
Value of fuel used ..	£ 21,206	8,144	(a)	(a)	(a)	b 29,038
Value of materials used ..	£ 4,519,541	1,751,108	(a)	(a)	(a)	b 6,345,214
Total value of output ..	£ 5,371,269	2,720,996	(a)	(a)	(a)	b 8,714,581
Value of production ..	£ 1,330,522	961,744	(a)	(a)	(a)	b 2,339,429

(a) Not available for publication.

(b) Including Queensland, South Australia and Western Australia.

(ii) *Total for Australia.* This industry was among the first to be established in Australia. In 1861 New South Wales had 11 factories, producing 177,744 lb. of manufactured tobacco; in the same year there was one factory in Victoria, but the quantity of tobacco manufactured is not available. The Australian market has for many years been largely supplied with local manufactures from the imported leaf. Imports during 1936-37 comprised—manufactured tobacco 555,837 lb., cigars 10,206 lb., and cigarettes 134,894 lb., while the quantities manufactured in Australian factories were respectively 15,733,223 lb., 262,481 lb., and 5,659,071 lb. The following tables show the extent of the industry in Australia for the last five years :—

TOBACCO, CIGAR AND CIGARETTE FACTORIES.—AUSTRALIA.

Items.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Number of factories	30	31	29	31	32
Number of employees	4,142	4,395	4,818	5,155	5,447
Approx. value of land and buildings ..	£ 910,547	£ 916,971	£ 927,122	£ 936,521	£ 1,001,236
Approx. value of plant and machinery ..	£ 663,069	£ 658,850	£ 784,371	£ 726,713	£ 870,430
Wages paid	£ 812,220	£ 838,608	£ 891,064	£ 950,790	£ 996,665
Value of fuel used	£ 23,088	£ 18,596	£ 18,661	£ 20,553	£ 29,938
Value of materials used	£ 4,823,564	£ 5,003,766	£ 5,373,582	£ 6,082,506	£ 6,345,214
Total value of output	£ 6,591,780	£ 6,894,327	£ 7,216,139	£ 8,529,491	£ 8,714,581
Value of production	£ 1,745,128	£ 1,871,965	£ 1,823,896	£ 2,426,432	£ 2,339,429

LEAF USED AND PRODUCTION.

Leaf used { Australian (Stemmed) 1,000 lb. Imported (") " }	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Tobacco made	14,788	14,056	14,527	15,277	15,733
Cigars made	254	259	253	283	262
Cigarettes made	4,362	4,577	4,813	5,305	5,659

The production of locally-grown leaf for many years was comparatively small, and manufacturers were dependent on imported leaf for the supply of their raw material. Increased duties stimulated local production, and the quantity of Australian leaf used by manufacturers rose from 1.2 million lb. in 1929-30 to over 3 million lb. in 1930-31; in 1932-33 the quantity of local leaf used fell to 2.7 million lb., but it has since increased to 4.2 million lb. In this connexion, see item "Tobacco" in Chapter XX. "Agricultural Production."

32. *Saw-mills, etc.*—(i) *Details for States, 1936-37.* The most important industry in Class X. is that of saw-milling. As separate particulars of forest saw-mills are not available for some of the States, both forest and other saw-mills, as well as plywood and bark mills have been combined in the following table :—

SAW-MILLS, FOREST AND OTHER : PLYWOOD AND BARK MILLS, 1936-37.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories	437	316	440	51	119	228	1,591
Number of persons engaged	5,096	3,548	4,809	940	2,376	1,515	18,284
Value of land and buildings ..	£ 737,963	£ 397,627	£ 390,640	£ 182,040	£ 213,523	£ 93,242	£ 2,015,040
Value of plant and machinery	£ 653,354	£ 585,313	£ 676,997	£ 127,011	£ 429,445	£ 199,832	£ 2,671,982
Wages paid	£ 898,531	£ 624,176	£ 782,273	£ 169,394	£ 501,561	£ 212,065	£ 3,188,000
Value of fuel used	£ 48,492	£ 44,196	£ 44,261	£ 7,482	£ 26,189	£ 13,418	£ 184,038
Value of materials used	£ 2,838,017	£ 1,571,893	£ 1,871,294	£ 624,070	£ 696,774	£ 340,318	£ 7,942,375
Total value of output	£ 4,451,784	£ 2,716,392	£ 3,101,077	£ 909,733	£ 1,444,048	£ 695,120	£ 13,379,054
Value of production	£ 1,565,275	£ 1,100,303	£ 1,246,122	£ 278,172	£ 721,085	£ 341,684	£ 5,252,641

(ii) *Total for Australia, 1932-33 to 1936-37.* The development of forest and other saw-mills, etc., since 1932-33 is shown in the following table:—

SAW-MILLS, FOREST AND OTHER : PLYWOOD AND BARK MILLS.—AUSTRALIA.

Items.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Number of establishments	1,229	1,276	1,405	1,443	1,591
Number of persons engaged	10,102	12,298	15,333	17,297	18,284
Value of land and buildings	£ 1,897,933	1,899,729	2,010,001	1,974,918	2,015,040
Value of plant and machinery	£ 2,449,908	2,460,647	2,595,995	2,702,063	2,671,982
Wages paid	£ 1,643,210	1,926,400	2,519,745	2,927,960	3,188,000
Value of fuel used	£ 103,361	115,438	139,572	170,705	184,038
Value of materials used	£ 3,285,202	4,022,263	5,604,845	6,663,907	7,942,375
Total value of output	£ 5,968,080	7,211,573	9,814,197	11,515,591	13,379,054
Value of production	£ 2,579,517	3,073,872	4,069,780	4,680,979	5,252,641

The table furnishes evidence of marked improvement during the past four years. The saw-mill output of native timber, which declined from 740 million super. feet in 1925-26 to the abnormally low figure of 237 million super. feet during the height of the depression, had recovered to 643 million super. feet in 1936-37. Indications point to a further increase in 1937-38 as a result of developments in the building industry. Further reference is made to the saw-milling industry in Chapter XXII. "Forestry."

33. **Furniture, Cabinet Making and Upholstery.**—These industries constitute the principal manufactures in Class XI. The following table gives particulars for each State:—

FURNITURE, CABINET MAKING AND UPHOLSTERY FACTORIES, 1936-37.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories	254	296	108	64	87	35	844
Number of persons engaged	4,626	3,304	1,400	916	718	289	11,253
Value of land and buildings	£ 720,100	593,110	212,847	131,609	108,112	28,099	1,793,007
Value of plant and machinery	£ 249,211	139,321	68,678	67,487	29,838	14,130	568,665
Wages paid	£ 829,259	473,783	252,392	137,605	113,437	42,515	1,848,991
Value of fuel used	£ 26,974	18,538	8,135	7,165	3,478	1,436	65,526
Value of materials used	£ 1,466,922	822,500	374,022	244,041	187,610	40,232	3,135,357
Total value of output	£ 2,787,692	1,655,149	780,683	464,201	379,710	102,311	6,169,746
Value of production	£ 1,293,796	814,111	398,526	212,995	188,592	60,843	2,968,863

34. **Printing and Bookbinding Works.**—Printing and bookbinding works rank high in importance among the industries of Australia, and in 1936-37 afforded employment for about 27,121 employees, and paid more than £5,400,000 in salaries and wages, while the value of output amounted to £15,228,000. The following table gives particulars of establishments engaged in general printing and bookbinding in each State for the year 1936-37. Government printing works are included, but establishments producing newspapers and periodicals are shown separately in the succeeding table:—

GENERAL PRINTING AND BOOKBINDING ESTABLISHMENTS, 1936-37.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories	322	431	99	63	79	21	1,015
Number of persons engaged	6,794	6,546	1,736	1,139	858	476	17,549
Value of land and buildings	£ 1,306,291	1,558,789	375,233	225,022	204,992	79,002	3,749,329
Value of plant and machinery	£ 1,182,566	1,075,766	202,297	231,247	180,326	68,713	2,910,795
Wages paid	£ 1,206,841	1,107,107	293,566	197,212	140,600	92,946	3,038,272
Value of fuel used	£ 39,447	38,352	9,713	9,005	5,711	2,221	103,482
Value of materials used	£ 1,378,007	1,213,355	243,995	175,428	140,647	56,240	3,207,672
Total value of output	£ 3,180,448	3,110,760	716,101	487,862	390,735	205,796	8,421,702
Value of production	£ 2,062,994	1,859,053	492,363	303,429	245,377	147,332	5,110,548

ESTABLISHMENTS PRODUCING NEWSPAPERS AND PERIODICALS, 1936-37.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	211	116	65	38	38	6	474
Number of persons engaged ..	4,123	2,438	1,465	626	636	284	9,572
Value of land and buildings ..	£ 1,672,270	709,578	497,748	365,276	418,350	27,105	3,681,327
Value of plant and machinery ..	£ 1,412,127	727,078	439,719	210,604	180,699	42,146	3,012,373
Wages paid ..	£ 1,051,725	659,473	323,492	153,654	167,143	66,719	2,422,206
Value of fuel used ..	£ 49,728	27,878	19,060	5,158	12,405	2,452	116,681
Value of materials used ..	£ 1,116,431	830,612	288,498	179,553	145,501	40,693	2,601,288
Total value of output ..	£ 3,005,011	1,880,660	861,037	423,227	428,239	208,571	6,806,745
Value of production ..	£ 1,838,852	1,022,170	553,479	238,516	270,333	165,426	4,088,776

35. Tyres, Motor and Cycle.—(i) *Details for each State, 1936-37.* During the last decade, the number of motor car and cycle users has shown a considerable advance and this necessarily has had a stimulating effect on the industry engaged in the manufacture of motor and cycle tyres. Particulars for each State during 1936-37 are shown hereunder :—

TYRES, MOTOR AND CYCLE, 1936-37.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number of factories ..	83	88	28	27	24	11	261
Number of persons engaged ..	2,235	2,235	151	145	80	61	4,907
Value of land and buildings ..	£ 742,611	663,899	58,589	59,644	35,746	22,515	1,583,004
Value of plant and machinery ..	£ 483,163	753,508	16,868	13,938	8,312	5,679	1,281,468
Wages paid ..	£ 479,715	450,380	19,612	15,219	9,202	6,349	980,567
Value of fuel used ..	£ 77,208	109,030	2,096	2,276	1,396	618	192,624
Value of materials used ..	£ 1,691,607	1,960,055	36,936	33,130	19,310	10,220	3,751,258
Total value of output ..	£ 2,448,075	3,187,010	77,360	68,914	44,802	25,769	5,851,930
Value of production ..	£ 679,260	1,117,925	38,328	33,508	24,096	14,931	1,908,048

(a) Includes Boots and Shoes and Other Rubber Goods.

(ii) *Total for Australia, 1932-33 to 1936-37.* Prior to 1930-31 particulars regarding this industry were included with Rubber Goods but separate details are now available and are shown in the following table for the last five years :—

TYRES, MOTOR AND CYCLE.—AUSTRALIA.

Items.	1932-33. (a)	1933-34. (a)	1934-35. (a)	1935-36. (a)	1936-37. (a)
Number of factories ..	279	279	261	260	261
Number of persons engaged ..	3,215	3,489	3,998	4,098	4,907
Value of land and buildings ..	£ 1,307,064	1,311,366	1,240,740	1,257,800	1,583,004
Value of plant and machinery ..	£ 975,947	939,796	895,139	841,815	1,281,468
Wages paid ..	£ 540,856	635,547	736,865	786,713	980,567
Value of fuel used ..	£ 112,558	126,471	134,335	136,542	192,624
Value of materials used ..	£ 1,347,737	1,681,151	2,173,447	2,269,954	3,751,258
Total value of output ..	£ 2,449,809	2,859,447	3,499,132	3,788,333	5,851,930
Value of production ..	£ 989,514	1,051,825	1,191,350	1,381,837	1,908,048

(a) Includes Boots and Shoes and Other Rubber Goods for Tasmania.

It will be noted that the value of output for the year 1936-37 is the greatest recorded since the manufacture of motor and cycle tyres was shown as a separate industry.

36. **Electric Light and Power Works.**—(i) *Details for each State, 1936-37.* The increased demand for electrical energy has been responsible for considerable development in electric light and power works during recent years. Since 1931-32 the production of electric light and power has increased from 2,507 to 3,909 million British units, or by more than 55 per cent. Particulars for the year 1936-37 are as follows:—

ELECTRIC LIGHT AND POWER WORKS, 1936-37.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	106	84	51	36	91	5	373
Number of persons engaged ..	1,982	1,346	480	1,531	632	73	6,044
Value of land and buildings £	4,738,036	1,975,217	487,076	561,287	341,453	231,777	8,355,446
Value of plant and machinery £	9,947,002	6,934,522	1,714,383	1,872,962	2,096,118	1,931,083	24,496,070
Wages paid ..	545,446	318,501	138,561	384,531	165,462	17,731	1,570,322
Value of fuel used £	1,005,563	537,457	299,045	205,446	469,874	..	2,577,385
Total value of output £	4,993,892	2,635,151	850,124	1,230,732	1,014,527	578,350	11,311,776

(ii) *Production 1932-33 to 1936-37.* The increase in the production of electric light and power in each of the States during the five years is clearly shown in the following table:—

ELECTRIC LIGHT AND POWER WORKS.—PRODUCTION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	I,000 K.W.H.	I,000 K.W.H.	I,000 K.W.H.	I,000 K.W.H.	I,000 K.W.H.	I,000 K.W.H.	I,000 K.W.H.
1932-33 ..	1,154,457	778,650	134,080	148,348	145,278	354,749	2,715,562
1933-34 ..	1,227,873	830,910	168,996	165,598	160,130	356,070	2,910,177
1934-35 ..	1,349,218	900,247	202,030	176,424	171,209	399,887	3,109,055
1935-36 ..	1,464,898	974,722	224,014	200,488	204,373	459,408	3,527,993
1936-37 ..	1,626,833	1,049,768	256,784	215,714	237,185	522,491	3,908,775

37. **Gas Works.**—(i) *Details for each State, 1936-37.* Gas works are in operation in the majority of important towns in Australia. New South Wales returned seven coke factories and Queensland three, working as separate industries, but under the new classification these are included in Class I.—Treatment of Non-metalliferous Mine and Quarry Products. The subjoined table gives particulars of gas works in each State for the year 1936-37:—

GAS WORKS, 1936-37.

Items.	N.S.W. (a)	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	43	39	16	4	4	2	108
Number of persons engaged ..	1,144	724	229	587	113	49	2,846
Value of land and buildings £	844,282	399,448	186,469	26,590	22,193	48,929	1,527,911
Value of plant and machinery £	3,129,453	1,959,846	567,541	1,164,065	276,096	149,027	7,246,028
Wages paid ..	261,962	186,489	57,470	142,463	24,813	11,407	684,604
Value of fuel used ..	197,507	137,974	4,374	2,092	13,684	(b)	355,631
Value of materials used £	659,485	679,387	143,372	122,787	77,566	23,389	1,705,086
Total value of output £	2,174,599	1,367,838	314,112	489,010	137,308	86,034	4,569,501
Value of production ..	1,317,607	550,477	166,366	364,131	46,058	63,245	2,507,884

(a) Includes Hydraulic Power.

(b) Included in Value of Materials used.

(ii) *Coal Used and Production, 1936-37.* The following table gives details for the year 1936-37 :—

GAS WORKS.—COAL USED AND PRODUCTION, 1936-37.

Particulars.				N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
COAL USED.										
Coal	..	..	tons	560,174	368,963	87,629	71,154	25,094	11,583	1,124,597
PRODUCTS.										
Gas produced	1,000 cubic ft.			10,377,602	6,564,355	1,365,414	1,119,278	507,138	214,152	20,147,939
Gas sold,	1,000 cubic ft.			8,937,788	5,827,528	1,190,811	902,910	451,071	173,396	17,483,504
Coke produced	..	tons		399,848	217,396	50,094	43,966	14,174	7,442	732,920
Coke for sale	..	tons		319,296	140,927	28,816	30,717	6,235	4,932	530,923
VALUE.										
Gas sold	..	£		1,453,008	1,687,978	446,231	409,525	177,864	71,702	4,246,308
Coke for sale	..	£		354,336	181,458	29,734	49,912	14,851	9,269	639,560

The maximum output of gas was 20,929,569 thousand cubic feet in 1929-30. The production declined to an average of 17,800,000 thousand cubic feet during the three years ended June, 1934, but in the past three years made notable gains to 20,147,939 thousand cubic feet in 1936-37.



This map was published in the Report of the Fifth Interstate Conference on Artesian Water, Sydney, 1928, and is reproduced with the permission of the Water Conservation and Irrigation Commission of New South Wales.

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CHAPTER XXV.

WATER CONSERVATION AND IRRIGATION.

§ 1. Artesian Water.

1. **General.**—In every country subject to droughts, the provision of adequate systems of water conservation is a matter of prime importance. Much has been done in Australia so far as the supply of water to centres of population is concerned, and a description of the principal water-works in each State will be found in Chapter IV.—Local Government.

Interstate Conferences on the subject of artesian water were held in 1912, 1914, 1921, 1924 and 1928, when combined Governmental action was agreed upon with reference to delimitation of the artesian basins, hydrographic surveys, reason for decrease in flow, analyses and utilization of artesian water, etc. A map showing the extent of the known artesian basins will be found on pages 821–22.

2. **The Great Australian Artesian Basin.**—The area known as the “Great Australian Artesian Basin,” includes (a) considerably more than one-half of Queensland, taking in practically all that State lying west of the Great Dividing Range, with the exception of an area in the north-west contiguous to the Northern Territory; (b) a considerable strip of New South Wales along its northern boundary and west of the Great Dividing Range; and (c) the north-eastern part of South Australia proper, together with the extreme south-eastern corner of the Northern Territory. This basin (shown approximately by the map on pages 821–22) is said to be the largest yet discovered, and measures about 600,000 square miles, of which 376,000 square miles are in Queensland, 118,000 square miles in South Australia, 80,000 square miles in New South Wales, and 25,000 square miles in the Northern Territory. The area of the intake beds is estimated at 60,010 square miles, viz., 50,000 square miles in Queensland and 10,010 square miles in New South Wales. A description of the basin and its geological formation will be found in previous issues of the Official Year Book (see No. 6, p. 569).

3. **The Western Australian Basins.**—The Western Australian Basins fall naturally within five distinct groups, viz., the Eucla Basin, in the extreme south-east of the State, extending well into South Australia along the shores of the Great Australian Bight; the Coastal Plain Basin, west of the Darling Range; the North-West Basin, between the Murchison and Ashburton Rivers; the Gulf basin, between Cambridge Gulf and Queen’s Channel; and the Desert Basin, between the De Grey and Fitzroy Rivers.

The Recent and Tertiary strata which enter Western Australia at its eastern border, and which have a prevailing dip towards the Great Australian Bight, form the Eucla artesian water area. Where boring operations have been undertaken, the water has been found to be salt or brackish, and there are other conditions affecting the supply, such as local variation in the thickness of the beds, their relative porosity, and the unevenness of the floor upon which they rest, which so far, have not been examined with sufficient thoroughness to enable many particulars to be given in regard to this basin.

In the Coastal Plain Basin to the west of the Darling Ranges, artesian boring has, on the other hand, been carried on successfully for many years.

4. **The Murray River Basin.**—The Murray River Basin extends over south-western New South Wales, north-western Victoria, and south-eastern South Australia. It is bounded on the west by the azoic and palæozoic rocks of the Mount Lofty and other

ranges extending northwards from near the mouth of the Murray to the Barrier Range, and on the east and north-east by the ranges of Victoria and New South Wales. This tertiary water-basin is occupied by a succession of sedimentary formations, both porous and impervious. It is of interest to note that the waters of the Murray River are partly supplied by influx from the water-bearing beds of this basin: this is proved by the fact that, at low water, springs are observed at certain places flowing into the river bed from beneath the limestone cliffs from Pyap Bend downwards. Similar springs exist along the courses of other branches of the River Murray system, where they cut through the tertiary formation. On the Victorian side, bores have been put down, and water has been struck at various levels.

5. **Plutonic or Meteoric Waters.**—In previous Year Books will be found a statement of the theory of Professor Gregory* as to the origin of the water in the Australian artesian basins, together with the objections held thereto by a former Government Geologist of New South Wales.† (See Official Year Book No. 6, p. 570).

6. **Artesian and Sub-Artesian Bores.**—(i) *General.* The following table gives particulars regarding artesian and sub-artesian bores in each State and in the Northern Territory:—

ARTESIAN AND SUB-ARTESIAN BORES, 1936-37.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust. (c)	W. Aust.	N. Ter.	Australia.
Bores existing .. No.	699	386	5,607	162	356	191	(e)7,401
Total depth of existing bores .. feet	b1,087,880	110,000	(d)	115,598	241,468	63,375	e1,618,321
Daily flow .. 1,000 gals.	(a)66,399	(c)800	251,052	12,971	(d)	7,723	(e)338,045
Depth at which artesian water was struck—							
Maximum .. feet	4,338	2,930	6,000	4,851	4,006	1,760	6,000
Minimum .. feet	100	22	10	233	30	42	10
Temperature of flow—							
Maximum .. °Fahr.	141	147	212	208	(d)	(d)	(e) 212
Minimum .. °Fahr.	75	70	78	82	(d)	(d)	(e) 70

(a) Flowing bores only. (b) Total depth of all bores. (c) Government bores only.
(d) Not available. (e) Incomplete.

(ii) *Details for States.*—Considerations of space preclude the insertion of separate particulars of operations in the States during the year 1936-37. Details for earlier years will, however, be found in issues of the Official Year Book prior to No. 24, 1931.

§ 2. Irrigation.

1. **General.**—Australia's first experiments in irrigation were made with the object of bringing under cultivation areas in which an inadequate rainfall rendered agricultural and even pastoral occupations precarious and intermittent, and, although these original settlements have generally proved fairly successful, most of the States, instead of promoting new settlement in unoccupied regions, are adopting the policy of making existing settlements closer, by repurchasing large estates, sub-dividing them into holdings of suitable sizes for cultivation, and selling the land upon easy terms of payments. It is in connexion with this Closer Settlement policy that the special value of irrigation is recognized. Information regarding the various irrigation schemes in operation was given in some detail in preceding issues of the Official Year Book (see No. 23, pages 637 to 661).

* See J. W. Gregory, F.R.S., D.Sc.: "The Dead Heart of Australia," London, John Murray, 1906; and "The Flowing Wells of Central Australia," Geogr. Journal, July and August, 1911.

† E. F. Pittman, A.R.S.M., formerly Government Geologist of New South Wales: "Problems of the Artesian Water Supply of Australia, with special reference to Professor Gregory's Theory." (Clarke Memorial Lecture, delivered before the Royal Society of New South Wales, 31st October, 1907); "The Great Australian Artesian Basin," Sydney, 1914; and "The Composition and Porosity of the Intake Beds of the Great Australian Artesian Basin," Sydney, 1915.

2. **Areas Irrigated.**—The following table gives the areas irrigated in each State in the years 1927–28 to 1936–37. Victoria shows the largest irrigated acreage, the area so returned in 1936–37 amounting to 518,827 acres, or 65.7 per cent of the total for Australia. New South Wales for the same year returned an area of 151,683 acres, or 19.2 per cent. of the total. The areas under irrigation in the remaining States are relatively very small:—

IRRIGATION.—AREAS IRRIGATED.

Season.	New South Wales. (e)	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1927–28 ..	102,533	477,500	21,411	38,379	4,292	7,016	651,131
1928–29 ..	123,129	471,695	25,344	39,236	4,907	7,054	(a) 671,475
1929–30 ..	126,321	566,577	26,282	40,002	4,943	6,693	770,818
1930–31 ..	135,121	463,098	26,947	43,538	5,661	6,488	680,853
1931–32 ..	114,777	418,415	28,414	42,813	6,104	7,768	618,291
1932–33 ..	130,977	474,716	31,409	42,556	6,434	7,605	693,697
1933–34 ..	131,772	435,324	29,363	42,898	7,640	9,194	656,191
1934–35 ..	125,423	494,226	34,138	39,594	8,861	7,786	(b) 710,054
1935–36 ..	138,016	495,835	44,283	42,672	11,396	8,987	(c) 741,312
1936–37 ..	151,683	518,827	54,095	42,292	13,295	9,987	(d) 790,179

(a) Including 100 acres Northern Territory and 10 acres Australian Capital Territory. (b) Including 26 acres Australian Capital Territory. (c) Including 123 acres Australian Capital Territory. (d) Including 70 acres Australian Capital Territory. (e) Not including pasture and fallow lands.

3. **Crops on Irrigated Areas.**—A classification of the crops grown on the irrigated areas in each State during the year 1936–37, together with the averages for Australia during the quinquennium 1932–33 to 1936–37, will be found in the table hereunder. Lucerne, grasses and green forage accounted for 34 per cent., cereals for 24 per cent., orchards and vineyards for 27 per cent., and root crops, market gardens, etc., for about 15 per cent. of the total area under irrigation in 1936–37. It should be noted, however, that the area under crop in Victoria does not include 300,094 acres of pasture land and fallow land which was irrigated in 1936–37. Likewise 7,345 acres of pasture land are also omitted from the Tasmanian figures for the same year.

IRRIGATION.—CROPS ON IRRIGATED AREAS, 1936–37, AND 1932–33 TO 1936–37.

Crop.	New South Wales.	Victoria.	Queens- land.	South Australia.	Western Australia.	Tas- mania.	Total	Average 1932–33 to 1936–37.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Cereals ..	76,272	38,328	150	..	..	..	114,750	117,138
Lucerne, Grasses and Green Forage ..	36,516	106,321	3,099	9,264	9,464	84	164,748	297,593
Orchards and Vineyards ..	27,841	66,526	5,630	28,095	2,477	1,304	131,873	127,527
Root Crops, Market Gardens and other Crops	11,054	7,558	(a) 45,216	4,933	1,354	(b) 1,254	71,369	61,473
Total ..	151,683	218,733	54,095	42,292	13,295	2,642	482,710	603,731

(a) Including Sugar Cane, 43,723 acres; Cotton, 460 acres; and Tobacco, 1,033 acres.
(b) Including Hops, 962 acres.

CHAPTER XXVI. PRIVATE FINANCE.

A. GENERAL.

In issues of the Official Year Book prior to No. 25 information relating to Private Finance was included in the Chapter dealing with Finance generally, but commencing with that issue a separate Chapter has been devoted thereto. The Chapter is subdivided into the following sections:—

Banking, including Savings Banks;
Companies;
Insurance;
Friendly Societies; and
Probates.

B. BANKING.

§ 1. Cheque-Paying Banks.

1. **Banking Legislation.**—(i) *Commonwealth Legislation.* Under Section 51 of the Commonwealth Constitution Act, the Commonwealth Parliament has power to legislate with respect to "Banking, other than State banking, also State banking extending beyond the limits of the State concerned, the incorporation of banks, and the issue of paper money." Similar powers regarding bills of exchange and promissory notes are also granted under this section. The principal legislation enacted comprises the following: The Commonwealth Bank Act 1911–1932 constituting the Commonwealth Bank and providing for its management and that of the note issue; the Bank Notes Tax Act 1910 designed to force private notes out of circulation; and the Bills of Exchange and Promissory Notes Act 1909–1936 regulating the issue of bills of exchange, cheques and promissory notes.

(ii) *State Legislation.* The Acts under which the various banks are incorporated differ somewhat. While most of the older banks were incorporated by special Act or Charter, e.g., the Bank of New South Wales, by Act of Council 1817; the Bank of Australasia, by Royal Charter; the Bank of Adelaide, by Act of the South Australian Parliament; and the Bank of New Zealand, by Act of the General Assembly of New Zealand, the newer banks are generally registered under a "Companies Act," or some equivalent Act. This is also the case with those banks which, after the crisis of 1893, were reconstructed. Banks transacting business in any State are obliged, under the existing State laws, to furnish a quarterly statement of their assets and liabilities, and they have since the year 1908 furnished to the Commonwealth Statistician, under the Census and Statistics Act 1905–1930, quarterly statements which contain the average of the thirteen weekly statements prepared by each bank. These returns form the basis on which the statistics included herein have been compiled.

2. **Royal Commission on Monetary and Banking Systems.**—A Royal Commission was appointed by the Commonwealth Government in November, 1935, to inquire into the monetary and banking systems at present in operation in Australia and to report whether any, and if so what, alterations are desirable in the interests of the people of Australia as a whole, and the manner in which any such alterations should be effected. The Commission presented its report on 15th July, 1937, and a summary of the recommendations is published in the Appendix to this issue.

3. **Presentation of Banking Statistics.**—In presenting statistical tabulations relating to average liabilities and assets, it is considered desirable to show the figures for the Commonwealth Bank separately from those of other Cheque-paying Banks. The

aggregate business of all trading banks is, however, given in additional paragraphs. Previously it was customary to show separate figures for each State, but this practice has now been discontinued. The figures quoted in all cases refer to the average liabilities and assets within the Commonwealth of Australia.

4. Banks in Operation, Capital Resources, etc.—(i) Year 1937. The paid-up capital of Cheque-paying Banks, together with their reserve funds, the dividend rate per cent., and the amount of their last dividends are shown in the following table. The information relates to the balance-sheet last preceding the 30th September, 1937. In regard to the reserve funds it must be noted that in the case of some of the banks these are invested in Government securities, while in other cases they are used in the ordinary business of the banks, and in a few instances they are partly invested and partly used in business :—

CHEQUE-PAYING BANKS.—CAPITAL RESOURCES, 1937.

Bank.	Paid-up Capital.	Reserves.	Balance on Profit and Loss Account. (g)	Total Shareholders' Funds.	Reserve Liability of Shareholders.	Dividends. (h)	
						Amount for year.	Average Rate per cent.
£	£	£	£	£	£	£	%
Australian Joint-Stock Banks—							
Bank of New South Wales ..	8,780,000	6,150,000	277,642	15,207,642	8,780,000	526,800	6
Commercial .. Banking Co. of Sydney Ltd.	4,739,012	4,300,000	285,097	9,324,109	4,739,013	308,036	6½
National Bank of Australasia Ltd. ..	5,000,000	3,300,000	307,540	8,607,540	1,800,000	287,500	5½
Commercial Bank of Australia Ltd. ..	4,117,350	2,250,000	212,351	6,579,701	..	218,027	Ord. 6½ Pref. 4
Ballarat Banking Co. Ltd. ..	153,000	102,500	14,685	270,185	87,000	9,180	6
Queensland .. National Bank Ltd. ..	1,750,000	860,000	59,756	2,669,756	..	74,375	4½
Brisbane Permanent Building and Banking Co. Ltd. ..	750,000	(g) 200,000	25,082	975,082	..	37,345	5
Bank of Adelaide ..	1,250,000	1,000,000	73,307	2,323,307	1,250,000	56,250	4½
Bank of Australasia ..	4,500,000	4,475,000	363,134	9,338,134	4,500,000	289,898	(f) 8
Union Bank of Australia Ltd. ..	4,000,000	4,850,000	281,247	9,131,247	8,000,000	235,333	7
English, Scottish and Australian Bank Ltd.	3,000,000	3,280,000	482,604	6,762,604	2,000,000	171,935	7
Total Australian Joint-Stock Banks	38,039,362	30,767,500	2,382,445	71,189,307	31,156,013	2,214,679	..
Other Cheque-paying Banks—							
Commonwealth Bank of Australia—							
General Bank ..	4,000,000	2,418,537	..	6,418,537	..	..	..
Rural Credits ..	2,000,000	318,620	..	2,318,620	..	..	..
Rural Bank of New South Wales (e) ..	14,333,083	11,510,180	..	15,843,263	..	..	..
State Bank of South Australia ..	b 2,000,000	..	..	2,000,000	..	..	..
Bank of New Zealand ..	6,328,125	3,575,000	645,749	10,548,874	..	574,219	(c)
Comptoir National d'Escompte de Paris (d) ..	3,225,806	3,580,477	328,069	7,134,352	..	258,065	8
Yokohama Specie Bank Ltd. (d) ..	10,000,000	13,265,000	1,749,822	25,014,822	..	1,000,000	10

(a) Stock and debentures issued. (b) Capital advanced by Government of South Australia and Sale of Bonds. (c) Preference "A," 10 per cent.; Preference "B," 7 3/11 per cent.; "C," Long Term Mortgage, 6 per cent.; "D," Long Term Mortgage, 7½ per cent.; Ordinary, 10 per cent. (d) Approximate. (e) See letterpress (ii) (a) following. (f) 8 per cent. less British Income Tax of 4s. 6d. in £. (g) Includes dividends declared but not paid at date of balance-sheet. (h) Dividends paid and payable out of profits earned during 1936-37. (i) Includes £783,243 Special Reserve Account established under Section 12 (2) of Rural Bank of New South Wales Act 1932.

(ii) *Suspension of Payments.* (a) *Rural Bank Department, Government Savings Bank of New South Wales.*—Particulars regarding the suspension of payments by the Rural Bank Department of the Government Savings Bank of New South Wales in 1931 and its subsequent absorption by the Commonwealth Bank were given in Official Year Book No. 26, page 437. Steps for the rehabilitation of the Rural Bank Department reached fruition in December, 1932, when assent was given to an Act (No. 63, 1932) which provided for the reconstitution of the Government Savings Bank under the new title of "Rural Bank of New South Wales". It also provided for the creation of a Government Agency Department and conferred on the Bank certain powers of management and of borrowing, etc.

(b) *Primary Producers' Bank of Australia Ltd.* On the 24th August, 1931, the Primary Producers' Bank of Australia Ltd. was forced to close and the business of the bank has now been wound up.

(iii) *Amalgamations.* The amalgamation of the Australian Bank of Commerce Ltd. with the Bank of New South Wales became effective from the 17th November, 1931.

On the 12th November, 1931, the Brisbane Permanent Building and Banking Co. Ltd. and the Queensland Deposit Bank amalgamated, and in March, 1932, the Brisbane Permanent Building and Banking Co. Ltd. absorbed the Federal Deposit Bank which had suspended payments in September, 1931.

5. **Commonwealth Bank.**—(i) *General.* A brief account of the foundation of the Commonwealth Bank was given in Nos. 6 to 10 of the Official Year Book. The Bank began operations in the Savings Bank Department in July, 1912, and general banking was commenced in January, 1913. In 1920 the note issue passed to the control of the Bank.

The scope of the Bank was considerably broadened in 1924 when the control was entrusted to a Board of Directors consisting of a Governor, the Secretary to the Treasury, and six others "who are or have been actively engaged in agriculture, commerce, finance or industry." Commencing without any capital the Bank had accumulated profits amounting to about £4,500,000 in 1924. Of this sum £4,000,000 was transferred to the capital fund of the Bank, and authority was given to increase the capital to £20,000,000. When it was in a position to do so the Board was to fix and publish the rates at which it would discount and rediscount bills of exchange. The trading banks were required to settle their balances by cheques drawn on the Commonwealth Bank, but there was to be no compulsion regarding the amount to be kept; subsequently the banks voluntarily opened accounts with the Commonwealth Bank. All banks were required to furnish to the Treasurer quarterly statements of their average weekly liabilities and assets on a basis similar to that used previously in furnishing statistics to State authorities. No alteration was made regarding the distribution of the profits of the Bank. Apart from the net earnings of the note issue which are payable to the revenue of the Commonwealth, one-half of the profits are allocated to the Bank Reserve Fund and the other half to the National Debt Sinking Fund on Commonwealth account. Action has not yet been taken to increase the capital of the Bank nor has a discount rate been published.

A Rural Credits Department of the Bank was created by amending legislation in 1925 for the purpose of making short-term credit available for the orderly marketing of primary produce. Portion of the capital for the new Department to the extent of £2,000,000 was provided by an annual appropriation of 25 per cent. of the net profits of the note issue.

The Commonwealth Bank Act 1927 provided for the separation of the Savings Bank Department from the General Bank and its establishment as a separate institution, and the transfer to the "Commonwealth Savings Bank of Australia" of all assets and liabilities of the Savings Bank Department. The date on which this amending Act became operative was fixed by proclamation as the 9th June, 1928. The new institution

was to be managed by a Commission consisting of three Commissioners, one of whom was to be a member of the Bank Board, but, as appointments to the Commission have not yet been made, the Bank Board is still controlling the Savings Bank.

The operations of the Bank, which holds in addition to the Commonwealth Government's accounts, those of the States of Victoria (portion only), Queensland, South Australia, Western Australia and Tasmania, and many local governing bodies, have developed towards those of a Central Bank. Unlike ordinary commercial banks, it does not offer special inducements to attract private accounts. The Bank played a most important part in the financing of Government deficits during the depression years. Since the 1st July, 1927, the Bank has published a weekly statement of the accounts of the note issue and general banking departments of the Bank.

(ii) *Aggregate Profits.* Particulars of the aggregate net profits from the initiation of the Bank to the end of each of the last five financial years are as follows:—

COMMONWEALTH BANK.—AGGREGATE PROFITS.

Date.	Aggregate Net Profit to Date.			
	General Bank.	Savings Bank.	Rural Credits Department.	Total.
	£	£	£	£
30th June, 1934 ..	7,755,163	3,329,950	430,530	11,515,643
„ 1935 ..	8,192,336	3,643,844	479,587	12,315,767
„ 1936 ..	8,611,922	3,978,570	524,746	13,115,238
„ 1937 ..	8,967,854	4,284,344	574,264	13,826,462
„ 1938 ..	9,299,154	4,575,896	607,153	14,482,203

In accordance with the provisions of section 30 of the Bank Act and section 9 (2) of the National Debt Sinking Fund Act, half of the net profits of the Bank have been placed to the credit of the Bank's Reserve Fund and half to the credit of the National Debt Sinking Fund. Up to 30th June, 1938, the latter fund had benefited to the extent of £4,577,229.

(iii) *Liabilities in Australia.*—(a) *Year 1937-38.* The following table gives particulars of the average liabilities in Australia for each quarter from September, 1937, to June, 1938:—

COMMONWEALTH BANK OF AUSTRALIA.—LIABILITIES,
QUARTERLY AVERAGES.(a)

Quarter Ended—	Bills in Circulation.	Balances Due to Other Banks. (b)	Deposits.			Total Liabilities.
			Not Bearing Interest.(c)	Bearing Interest.	Total Deposits.	
	£	£	£	£	£	£
September, 1937	254,765	23,094,200	15,244,313	41,375,084	56,619,397	79,968,362
December, 1937..	286,574	24,149,284	17,350,098	41,190,281	58,559,279	83,207,137
March, 1938 ..	263,090	25,128,601	17,368,237	41,913,131	59,281,368	84,673,059
June, 1938 ..	314,840	19,404,009	18,505,546	45,256,710	63,762,256	83,481,105

(a) Excludes Commonwealth Savings Bank. (b) Includes deposits of " Other Cheque-paying Banks ". (c) Government " Set-off " Accounts (Interstate) deducted.

(b) *Quarters ended June, 1934 to 1938.* The average liabilities in Australia for the quarter ended June in each of the years 1934 to 1938 are given in the table below. In comparisons with earlier years, it should be noted that the Savings Bank Department operated independently from the 9th June, 1928.

**COMMONWEALTH BANK OF AUSTRALIA.—AVERAGE LIABILITIES,
QUARTERS ENDED JUNE.(a)**

Quarter Ended June—	Bills in Circulation.	Balances Due to Other Banks. (b)	Deposits.			Total Liabilities.
			Not Bearing Interest.(c)	Bearing Interest.	Total Deposits.	
	£	£	£	£	£	£
1934..	317,141	38,367,104	12,374,013	28,589,797	40,963,810	79,648,055
1935..	227,964	23,681,964	11,757,699	33,542,161	45,299,860	69,209,788
1936..	240,081	16,938,233	11,992,847	33,683,557	45,676,404	62,854,718
1937..	274,326	24,459,313	16,534,597	37,635,236	54,169,833	78,903,472
1938..	314,840	19,404,009	18,505,546	45,256,710	63,762,256	83,481,103

(a) Excludes Commonwealth Savings Bank. (b) Includes deposits of "Other Cheque-paying Banks". (c) Government "Set-off" Accounts (Interstate) deducted.

(iv) *Assets in Australia.* (a) *Year 1937–38.* The average assets in Australia for each quarter of the year 1937–38 were as follows:—

COMMONWEALTH BANK OF AUSTRALIA.—ASSETS, QUARTERLY AVERAGES.(a)

Quarter Ended—	Coin.	Bullion.	Austrian Notes.	Government and Municipal Securities. (b)	Landed and House Property.	Balances Due from Other Banks.	Notes and Bills of Other Banks.	Advances, Discounts, Overdrafts, and all other Assets (not including Contingent Assets).(c)	Total Assets.
	£	£	£	£	£	£	£	£	£
September, 1937	754,795	374,746	4,038,345	441,908,916	747,781	89,899	27,236	12,431,121	60,372,830
December, 1937	651,209	378,337	4,175,861	41,645,923	732,460	113,764	40,861	12,705,068	60,443,483
March, 1938	793,182	333,020	4,216,920	45,904,799	724,060	92,483	50,965	11,553,137	66,669,466
June, 1938	864,415	353,039	4,020,697	41,952,657	719,234	108,051	28,288	11,159,773	63,206,154

(a) Excludes Commonwealth Savings Bank. (b) Includes Treasury Bills. (c) Includes short-term loans in Australia other than Treasury Bills. (d) Government "Set-off" Accounts (Interstate) deducted.

(b) *Quarters ended June, 1934 to 1938.* Particulars of the average assets in Australia for the quarter ended June in each of the last five years are given in the following table:—

**COMMONWEALTH BANK OF AUSTRALIA.—AVERAGE ASSETS,
QUARTERS ENDED JUNE.(a)**

Quarter Ended June—	Coin.	Bullion.	Austrian Notes.	Government and Municipal Securities. (b)	Landed and House Property.	Balances Due from Other Banks.	Notes and Bills of Other Banks.	Advances, Discounts, Overdrafts, and all other Assets (not including Contingent Assets).(c)	Total Assets.
	£	£	£	£	£	£	£	£	£
1934	726,573	111,262	6,386,613	44,499,382	910,979	83,506	8,426	7,999,469	60,726,210
1935	660,426	152,345	5,010,741	43,628,905	873,892	94,949	9,753	7,657,537	58,088,548
1936	718,802	384,112	5,184,487	43,512,577	818,301	122,616	14,146	9,953,832	56,708,873
1937	740,085	330,535	4,172,308	43,177,572	762,422	91,318	29,834	11,761,086	61,065,160
1938	864,415	353,039	4,020,697	41,952,657	719,234	108,051	28,288	11,159,773	63,206,154

(a) Excludes Commonwealth Savings Bank. (b) Includes Treasury Bills. (c) Includes short-term loans in Australia other than Treasury Bills. (d) Government "Set-off" Accounts (Interstate) deducted.

6. **Other Cheque-Paying Banks.**—(i) *General.* The term "Other Cheque-paying Banks" has been adopted in preference to "Joint-stock Banks." The latter term although used for some time was not strictly correct, as the statistics relating thereto for recent years included returns for the Rural Bank Department of the Government Savings Bank of New South Wales (now Rural Bank of New South Wales) and the State Bank of South Australia, both of which are governmental banking institutions. The figures showing average liabilities and assets given in paragraphs (ii) and (iii) immediately following are, however, comparable with those given under "Joint-stock Banks" in previous issues of the Official Year Book.

(ii) *Liabilities in Australia.* (a) *Year 1937-38.* Particulars of the average liabilities in Australia of "Other Cheque-paying Banks" for each quarter from September, 1937 to June, 1938, are given in the table following:—

OTHER CHEQUE-PAYING BANKS.—LIABILITIES, QUARTERLY AVERAGES.

Quarter Ended—	Notes in Circulation not Bearing Interest.	Bills in Circulation not Bearing Interest.	Balances Due to Other Banks.	Deposits.			Total Liabilities.
				Not Bearing Interest.	Bearing Interest. (a)	Total.	
	£	£	£	£	£	£	£
September, 1937	167,327	2,780,179	1,110,112	116,928,087	198,712,716	315,640,803	319,998,721
December, 1937	167,274	3,042,429	1,652,552	122,790,539	198,430,647	321,221,186	326,083,441
March, 1938 ..	167,223	3,091,484	1,808,882	126,397,752	202,253,558	328,651,310	333,718,899
June, 1938 ..	167,212	2,992,693	1,608,182	122,538,549	205,242,523	327,781,072	332,549,159

(a) Includes Inscribed deposit Stock of the E. S. and A. and Queensland National Banks.

(b) *Quarters ended June, 1934 to 1938.* The next table shows the average liabilities in Australia of "Other Cheque-Paying Banks" for the quarters ended June from 1934 to 1938.

**OTHER CHEQUE-PAYING BANKS.—AVERAGE LIABILITIES,
QUARTERS ENDED JUNE.**

Quarter Ended June.	Notes in Circulation not Bearing Interest.	Bills in Circulation not Bearing Interest.	Balances Due to Other Banks.	Deposits.			Total Liabilities.
				Not Bearing Interest.	Bearing Interest. (a)	Total.	
	£	£	£	£	£	£	£
1934	173,590	2,376,476	1,525,842	101,853,623	201,217,703	303,071,326	307,147,234
1935	169,063	2,722,598	1,091,267	107,329,157	190,719,845	298,049,002	302,031,930
1936	167,447	2,806,899	1,386,509	110,636,515	187,491,212	298,127,727	302,488,582
1937	167,360	2,850,852	1,808,872	121,764,787	199,152,389	320,917,176	325,744,260
1938	167,212	2,992,693	1,608,182	122,538,549	205,242,523	327,781,072	332,549,159

(a) Includes Inscribed Deposit Stock of the E. S. and A. and Queensland National Banks.

(iii) *Assets in Australia.* (a) *Year 1937-38.* The average assets in Australia of the banks are shown in the following table:—

OTHER CHEQUE-PAYING BANKS.—ASSETS, QUARTERLY AVERAGES.

Quarter Ended	Coin.	Bullion.	Austra- lian Notes and Cash with Common- wealth Bank.	Govern- ment and Municipal Securities.	Landed and House Pro- perty.	Balances Due from Other Banks.	Notes and Bills of Other Banks.	Advances, Discounts, Over- drafts, and all other Assets.	Total Assets.
	£	£	£	£	£	£	£	£	£
September, 1937	4,775,093	592,883	35,028,584	46,501,523	0,594,790	3,068,713	2,036,271	286,800,358	385,308,215
December, 1937	4,819,587	612,402	36,936,325	45,792,102	0,835,152	3,398,528	2,290,749	295,729,862	395,921,707
March, 1938 ..	4,971,031	650,785	37,569,733	46,352,061	0,833,628	3,073,123	2,327,569	299,916,176	401,604,206
June, 1938 ..	4,852,212	743,730	35,543,120	44,887,709	10,023,145	2,865,017	2,228,910	308,041,359	402,215,560

(b) *Quarters ended June, 1934 to 1938.* The average assets in Australia of "Other Cheque-paying Banks" for the quarter ended June in each of the years 1934 to 1938 are given below:—

**OTHER CHEQUE-PAYING BANKS.—AVERAGE ASSETS,
QUARTERS ENDED JUNE.**

Quarter Ended June.	Coin and Bullion.	Australian Notes and Cash with Commonwealth Bank.	Government and Municipal Securities.	Landed and House Property.	Balances Due from Other Banks.	Notes and Bills of Other Banks.	Advances, Discounts, Overdrafts, and all Other Assets.	Total Assets.
	£	£	£	£	£	£	£	£
1934	1,886,070	51,972,774	53,041,964	8,285,480	4,080,342	1,501,633	255,799,072	376,664,344
1935	1,006,443	37,243,782	53,648,677	8,753,818	2,927,131	1,830,022	273,182,595	379,193,318
1936	2,023,765	29,473,860	45,610,706	8,979,458	2,734,715	1,900,411	282,512,858	373,235,863
1937	2,299,482	36,877,295	46,004,134	9,397,590	2,775,214	2,185,774	282,962,158	382,501,647
1938	2,595,942	31,543,420	44,887,709	10,023,145	2,895,047	2,228,940	308,041,359	402,215,562

7. All Cheque-paying Banks.—(i) *General.* Particulars of the aggregate average liabilities and assets in Australia of all Cheque-paying Banks in the Commonwealth, including the Commonwealth Bank of Australia, are given in the subjoined paragraphs.

(ii) *Liabilities in Australia.* (a) *Year 1937–38.* The average liabilities in Australia of all Cheque-paying Banks for each quarter of the year 1937–38 were as follows:—

ALL CHEQUE-PAYING BANKS.—LIABILITIES, QUARTERLY AVERAGES.(a)

Quarter Ended—	Notes in Circulation.	Bills in Circulation.	Balances Due to Other Banks.(b)	Deposits.			Total Liabilities.
				Not Bearing Interest.(c)	Bearing Interest.(d)	Total Deposits.	
	£	£	£	£	£	£	£
September, 1937	167,327	3,034,944	24,504,612	132,172,400	240,087,800	372,260,200	399,967,083
December, 1937..	167,274	3,331,003	26,101,836	140,156,537	239,629,928	379,786,465	409,380,578
March, 1938 ..	167,223	3,354,574	26,937,483	143,705,989	244,160,689	387,866,678	418,301,958
June, 1938 ..	167,212	3,307,533	21,012,191	141,044,095	250,499,233	391,543,328	416,030,264

(a) Excludes Commonwealth Savings Bank. (b) Deposits of Other Cheque-paying Banks with Commonwealth Bank are treated in returns as "Balances due to Other Banks". (c) Government "Set-off" Accounts, Interstate (Commonwealth Bank) deducted. (d) Includes Inscribed Deposit Stock of the E. S. and A. and Queensland National Banks.

(b) *Quarters ended June, 1934 to 1938.* The next table shows the average liabilities in Australia for the quarters ended June from 1934 to 1938.

**ALL CHEQUE-PAYING BANKS.—AVERAGE LIABILITIES,
QUARTERS ENDED JUNE.(a)**

Quarter Ended June—	Notes in Circulation.	Bills in Circulation.	Balances due to Other Banks.(b)	Deposits.			Total Liabilities.
				Not Bearing Interest.(c)	Bearing Interest.(d)	Total.	
	£	£	£	£	£	£	£
1934 ..	173,590	2,693,617	39,802,946	114,227,636	229,807,500	344,035,136	386,795,289
1935 ..	169,003	2,950,562	24,773,231	119,086,856	224,262,006	343,348,862	371,241,718
1936 ..	167,447	3,046,980	18,324,712	122,629,362	221,174,769	343,804,131	365,343,300
1937 ..	167,360	3,125,178	26,268,185	138,299,384	236,767,625	375,067,009	404,647,732
1938 ..	167,212	3,307,533	21,012,191	141,044,095	250,499,233	391,543,328	416,030,264

(a) Excludes Commonwealth Savings Bank. (b) Deposits of Other Cheque-paying Banks with Commonwealth Bank are treated in returns as "Balances due to Other Banks". (c) Government "Set-off" Accounts, Interstate (Commonwealth Bank) deducted. (d) Includes Inscribed Deposit Stock of the E. S. and A. and Queensland National Banks.

(iii) *Assets in Australia.* (a) Year 1937-38. Particulars of the average assets in Australia for each quarter from September, 1937 to June, 1938 are given in the following table :—

ALL CHEQUE-PAYING BANKS.—ASSETS, QUARTERLY AVERAGES.(a)

Quarter Ended—	Coin.	Bullion.	Australian Notes and Cash with Commonwealth Bank.	Government and Municipal Securities. (b)	Landed and House Property.	Balances Due from Other Banks.	Notes and Bills of Other Banks.	Advances, Discounts, Overdrafts, and all other Assets (not including Contingent Assets).(c)	Total Assets.
	£	£	£	£	£	£	£	£	£
September, 1937	2,520,888	967,620	30,066,020	488,110,430	10,112,571	3,158,612	2,063,507	209,231,479	445,771,054
December, 1937	2,170,790	990,739	10,712,180	87,418,025	10,507,612	3,419,292	2,331,010	134,930	456,365,190
March, 1938	2,794,214	983,805	41,780,053	92,250,800	10,588,588	3,165,606	2,378,534	431,109,313	468,363,572
June, 1938	2,716,927	1,096,709	35,561,117	80,840,369	10,712,379	3,003,098	2,257,228	432,301,132	465,421,716

(a) Excludes Commonwealth Savings Bank. (b) Includes Treasury Bills. (c) Includes short-term loans in Australia other than Treasury Bills. (d) Government "Set-off" Accounts, Interstate (Commonwealth Bank) deducted.

(b) *Quarters ended June 1934 to 1938.* The average assets in Australia for the quarter ended June in each of the years 1934 to 1938 were as follows :—

ALL CHEQUE-PAYING BANKS.—AVERAGE ASSETS, QUARTERS ENDED JUNE.(e)

Quarter ended June—	Coin and Bullion.	Australian Notes. (a)	Government and Municipal Securities. (d)	Landed and House Property.	Balances Due from Other Banks.	Notes and Bills of Other Banks.	Advances and all other Assets.(c)	Total Assets.
	£	£	£	£	£	£	£	£
1934..	2,723,905	58,359,387	697,541,316	9,196,468	4,172,848	1,601,039	263,795,541	437,390,554
1935..	2,719,214	42,254,523	697,277,582	9,627,710	3,022,380	1,840,375	280,840,132	437,581,916
1936..	3,126,679	34,658,347	685,123,373	9,797,759	2,857,331	1,914,557	292,466,090	429,944,736
1937..	3,379,102	41,049,603	689,181,706	10,160,012	2,866,532	2,215,608	294,723,244	443,566,807
1938..	3,813,396	35,564,117	86,840,366	10,742,379	3,003,098	2,257,228	432,301,132	465,421,716

(a) Includes Cash with Commonwealth Bank. (b) Government "Set-off" Accounts, Interstate (Commonwealth Bank) deducted. (c) Short term loans in Australia other than Treasury Bills included. (d) Includes Treasury Bills. (e) Excludes Commonwealth Savings Bank.

(iv) *Cash Reserve Ratios.* The following table shows for the quarter ended June of each of the years 1929 to 1938 the percentages of cash on liabilities "at call" and "total liabilities" respectively for the Commonwealth Bank and the Other Cheque-paying Banks. These percentages relate throughout to business within Australia.

(a) *Commonwealth Bank.* Cash reserves comprise coin, bullion and Australian notes. "Call" liabilities comprise deposits not bearing interest and balances due to other banks. The latter item is assumed to be approximately equivalent to the cash with Commonwealth Bank of the Other Cheque-paying Banks which is included in their quarterly statements with Australian Notes.

In interpreting the percentages it should be noted that the Commonwealth Savings Bank was not created a separate department of the Commonwealth Bank until the 9th June, 1928. Savings Bank deposits are included in the total liabilities of the Commonwealth Bank up to this date, but, obviously, did not come into "call" liabilities.

(b) *Other Cheque-paying Banks.* Cash reserves comprise coin, bullion, Australian notes and cash with the Commonwealth Bank, while "call" liabilities include deposits not bearing interest and notes in circulation. In computing the percentages in this table particulars relating to the Rural Bank of New South Wales have been excluded.

It is not strictly correct to assume that a division of deposits with Cheque-paying Banks into those bearing interest and not bearing interest would in all cases coincide with a definite division into fixed deposits and current accounts respectively, but in the absence of the data required to permit of an accurate apportionment, such a division has been adopted for the purposes of this analysis.

CHEQUE-PAYING BANKS.—CASH RESERVE RATIOS.

Quarter Ended June—				On Liabilities "At Call."		On Total Liabilities.	
				Commonwealth Bank.	Other Cheque-paying Banks. (a)	Commonwealth Bank.	Other Cheque-paying Banks. (a)
				%	%	%	%
1929	..	..	..	19.7	43.8	14.1	15.8
1930	..	..	..	24.4	41.9	16.7	13.5
1931	..	..	..	11.6	65.3	8.4	19.6
1932	..	..	..	18.4	56.7	10.7	17.3
1933	..	..	..	21.9	46.2	10.1	14.6
1934	..	..	..	14.2	52.5	9.1	17.4
1935	..	..	..	16.4	36.1	8.4	12.9
1936	..	..	..	21.7	28.1	10.0	10.3
1937	..	..	..	12.8	32.1	6.6	12.0
1938	..	..	..	13.8	27.8	6.3	10.2

(a) Rural Bank of New South Wales excluded.

(v) *Advances, and Advances and Securities. Percentage on Total Deposits.* The percentages of advances, and of advances and securities on total deposits, respectively for the Commonwealth Bank, the Other Cheque-paying Banks, and for All Cheque-paying Banks are shown in the following table. The data on which the percentages are based relate only to business within Australia.

For the Commonwealth Bank and Other Cheque-paying Banks, "Advances" are represented by the item "Advances, discounts, overdrafts, and all other assets (not including contingent assets)," which are combined with "Government and Municipal Securities" (including short-term loans in Australia) under the heading "Advances and Securities." "Deposits" include deposits of all kinds except those of Other Cheque-paying Banks with the Commonwealth Bank, i.e., "Cash with Commonwealth Bank." "Savings Bank Deposits" with the Commonwealth Bank, and "Advances and Securities" from these deposits were included prior to the separation of the Savings Bank business from the general business of the present Banking Department on 9th June, 1928.

In computing the percentages in this table, particulars relating to the Rural Bank of New South Wales have been excluded.

CHEQUE-PAYING BANKS.—PERCENTAGE OF ADVANCES, AND ADVANCES AND SECURITIES ON TOTAL DEPOSITS.

Quarter Ended June—	Advances on Total Deposits.			Advances and Securities on Total Deposits.		
	Common- wealth Bank.	Other Cheque- paying Banks. (a)	Total. (a)	Common- wealth Bank.	Other Cheque- paying Banks. (a)	Total. (a)
	%	%	%	%	%	%
1929	52.8	86.9	83.9	101.9	95.1	95.7
1930	59.6	98.2	95.0	151.3	105.5	109.4
1931	56.5	92.8	89.9	228.7	101.1	111.3
1932	33.5	82.7	77.3	137.3	98.1	102.4
1933	18.0	85.3	77.0	137.2	104.1	108.2
1934	16.9	79.9	72.4	128.2	97.2	100.9
1935	16.4	87.1	77.8	113.2	104.7	105.8
1936	20.6	90.2	80.9	108.3	105.2	105.6
1937	20.9	83.8	74.6	101.4	97.8	98.3
1938	27.1	89.4	78.8	90.0	102.8	100.7

(a) Rural Bank of New South Wales excluded.

(vi) *Deposits per head of Population.* Particulars of the average deposits per head of population, calculated on the mean population of the quarter, are given for the quarter ended June of each of the last five years in the following table. The figures given, which are based on the aggregate for all Cheque-paying Banks in each State, are not adjusted on account of the Government "set-off" accounts of the Commonwealth Bank.

ALL CHEQUE-PAYING BANKS. DEPOSITS PER HEAD OF POPULATION.

Quarter Ended June—	New South Wales.(a)	Victoria.	Queens- land.	South Australia.	Western Australia.	Tasmania.	Northern Territory.	Total.
	£	£	£	£	£	£	£	£
1934 ..	46.9	69.1	46.2	44.3	39.8	30.4	31.5	51.8
1935 ..	47.5	65.7	46.2	43.8	42.3	36.3	32.9	51.1
1936 ..	47.5	65.6	45.9	44.6	43.2	36.5	33.1	51.3
1937 ..	52.3	70.5	47.7	49.1	44.7	38.0	36.8	55.3
1938 ..	54.3	72.1	51.1	49.6	46.4	39.9	41.5	56.8

(a) Includes Australian Capital Territory.

It may be mentioned here that deposits of "other Cheque-paying Banks" with the Commonwealth Bank are treated in the returns as "balances due to Other Banks".

(vii) *Proportion of Non-Interest Bearing Deposits to Total Deposits.* The subjoined table shows for each State the proportion of non-interest bearing deposits to the total deposits with all Cheque-paying Banks during the quarter ended June of each of the years 1934 to 1938. Government "set-off" accounts of the Commonwealth Bank have been deducted in arriving at the percentage for all States combined.

ALL CHEQUE-PAYING BANKS.—PROPORTION OF NON-INTEREST BEARING DEPOSITS TO TOTAL DEPOSITS.

Quarter ended June—	New South Wales, (a)	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Northern Territory.	Total.
	%	%	%	%	%	%	%	%
1934 ..	38.6	28.4	37.7	24.8	37.6	33.1	54.3	33.6
1935 ..	40.1	29.1	38.7	26.1	39.3	35.5	61.7	34.7
1936 ..	40.6	32.1	39.1	27.9	38.3	39.1	63.2	35.7
1937 ..	41.6	32.8	39.3	29.2	41.7	38.4	67.2	36.8
1938 ..	40.5	31.7	40.4	27.8	40.3	37.4	65.1	36.5

(a) Includes Australian Capital Territory.

8. **Deposit Rates.**—Particulars of interest rates for deposits since 1920 are given hereunder. It should be mentioned that the rates allowed by the Commonwealth Bank have not always been the same as those given by the other trading banks.

BANK DEPOSIT RATES.

Periods during which rates were in force.	Deposits for—			
	Three Months.	Six Months.	Twelve Months.	Two Years.
	Per cent. per annum.	Per cent. per annum.	Per cent. per annum.	Per cent. per annum.
24th July, 1920 to 18th August, 1927 ..	3½	4	4½	5
19th August, 1927 to 27th January, 1930 ..	4	4	4½	5
28th January, 1930 to 25th June, 1931 ..	4½	4½	5	5½
26th June to 26th November, 1931 ..	3½	3½	4	4½
27th November, 1931 to 7th March, 1932 ..	3	3½	3½	4
8th March to May-June, 1932 (a) ..	2½	3	3½	4
May-June (a) to 31st October, 1932 (b) ..	2½	3	3½	3½
1st November, 1932 to 6th February, 1933 ..	2½	2½	3	3½
7th February, 1933 to 11th April, 1934 ..	2	2½	2½	3
12th April to 8th August, 1934 ..	2	2½	2½	2½
9th August to 10th October, 1934 ..	1½	2½	2½	2½
11th October to 16th December, 1934 ..	1½	2	2½	2½
17th December, 1934 to 23rd March, 1936 (c) ..	1	1½	2½	2½
24th March, 1936 (d) ..	2	2½	2½	3

(a) All Banks did not take simultaneous action. (b) Bank of New South Wales reduced the rates for 6, 12 and 24 months terms by one quarter of 1 per cent. from 23rd August, 1932.
(c) Commonwealth Bank only. (d) Bank of New South Wales from 2nd March and Bank of Adelaide from 3rd March.

The "Premiers Plan" included, *inter alia*, provisions for the reduction of bank rates of interest on both deposits and advances.

9. **Clearing House Returns.**—(i) *Annual Clearings.* Particulars of the aggregate bank clearings for each capital city, as furnished by the Associated Banks, Melbourne, are given in the following table. Since October, 1920, transactions connected with the issue and redemption of Treasury Bills have resulted in largely inflated clearings. These transactions are of an abnormal character, and for the years 1933 to 1937 are shown separately. A weekly average of bank clearings is compiled from information supplied by the Commonwealth Bank, Sydney, and published in the Quarterly Summary of Australian Statistics.

CLEARING HOUSE RETURNS.—VALUE OF BILLS, CHEQUES, ETC., 1870 TO 1937.

Year.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.	Total.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
1870 (a) ..	..	64,532	..	..	..	..	64,532
1880 (a) ..	..	85,877	..	..	..	..	85,877
1890 ..	..	315,190	..	..	..	..	315,190
1895 ..	108,509	130,787	..	..	..	..	239,296
1900 ..	144,080	159,949	..	..	..	..	304,029
1905 ..	189,826	187,632	32,255	..	..	..	409,713
1910 ..	274,344	261,383	61,060	..	..	..	596,787
1915 ..	357,803	299,295	96,291	60,950	..	..	814,339
1920 ..	764,546	725,006	160,539	166,011	80,758	..	1,896,860
1925 ..	909,114	803,083	192,968	171,092	101,085	25,557	2,202,899
1928 ..	1,033,511	762,851	196,566	164,166	112,503	28,226	2,297,823
1929 ..	1,043,320	681,210	196,253	156,686	114,587	27,365	2,235,316
1930 ..	687,390	669,741	167,909	125,681	80,034	23,092	1,975,840
1931 ..	668,176	656,865	144,814	96,867	71,356	18,057	1,581,135
1932 ..	658,733	659,235	141,511	106,805	75,678	19,259	1,524,402
1933—							
Ordinary Trans-							
actions ..	641,400	619,230	148,335	112,250	79,689	19,864	1,620,768
Treasury Bills							
Transactions	251,477	60,733	..	..	..	..	312,210
Total ..	892,877	679,963	148,335	112,250	79,689	19,864	1,932,978
1934—							
Ordinary Trans-							
actions ..	716,084	676,407	165,555	118,056	84,628	22,463	1,783,793
Treasury Bills							
Transactions	256,013	55,520	..	..	..	..	311,533
Total ..	972,097	731,927	165,555	118,056	84,628	22,463	2,095,326
1935—							
Ordinary Trans-							
actions ..	775,986	724,327	181,889	132,689	94,705	24,713	1,934,309
Treasury Bills							
Transactions	247,683	52,369	..	..	..	..	300,052
Total ..	1,023,669	776,696	181,889	132,689	94,705	24,713	2,234,361
1936—							
Ordinary Trans-							
actions ..	842,610	755,196	188,906	139,959	101,880	27,065	2,056,216
Treasury Bills							
Transactions	250,829	43,176	..	..	..	..	294,005
Total ..	1,093,439	798,372	188,906	139,959	101,880	27,065	2,350,221
1937—							
Ordinary Trans-							
actions ..	937,334	844,488	204,493	157,596	104,891	29,874	2,278,676
Treasury Bills							
Transactions	262,630	43,424	..	..	..	..	306,054
Total ..	1,199,964	887,912	204,493	157,596	104,891	29,874	2,584,730

(a) Figures now published for these years exclude payments in coin.
Bills transactions.

(b) Excludes Treasury

(ii) *Index of Annual Clearings.* The following index of bank clearings in each capital city for the years 1928 to 1937 has been computed from the figures in the previous paragraph. The base used is the average of the years 1927 to 1929. Clearings connected with the issue and redemption of Treasury Bills have been disregarded and no adjustment has been made on account of amalgamations of banking interests.

INDEX OF BANK CLEARINGS, 1928 TO 1937.

(Base: Average of Years 1927 to 1929 = 1,000.)

Year.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.	Total.
1927-29 ..	1,000	1,000	1,000	1,000	1,000	1,000	1,000
1928 ..	996	953	1,008	970	997	1,028	981
1929 ..	1,006	1,015	1,006	926	1,015	996	1,004
1930 ..	841	872	861	743	789	841	844
1931 ..	659	708	743	572	632	657	675
1932 ..	568	740	726	632	671	701	651
1933 ..	618	774	761	663	706	723	692
1934 ..	690	845	849	701	750	818	762
1935 ..	748	905	933	784	839	900	826
1936 ..	812	944	969	827	903	1,007	878
1937 ..	935	1,064	1,102	942	954	1,122	997

10. *Rates of Exchange.*—(i) *Australia on London.* The following statement, which has been prepared from data supplied by the General Manager of the Bank of New South Wales, Sydney, gives particulars of the various rates of exchange, Australia on London, in operation since 20th April, 1927. In earlier issues particulars were given of the rates in operation since 16th October, 1913. The details given show the value in Australia of £100 in London according to the rates quoted by the Associated Banks for buying and selling £100 in London on telegraphic transfer. In December, 1931, the Commonwealth Bank Board undertook the responsibility of regulating sterling exchange and announcing rates each week.

EXCHANGE RATES. -AUSTRALIA ON LONDON, TELEGRAPHIC TRANSFER. FROM 20th APRIL, 1927.

Date on which Rate began to Operate.	Exchange.		Commission for £100 (Sterling).	
	London.	Australia (Mean of Buying and Selling Rates).		
	£ sterling	£	£ s. d.	s. d.
20th April, 1927 ..	100	100 plus	0 6 3	3 0
27th June, 1927 ..	..	..	0 8 9	3 9
8th July, 1927 ..	..	..	0 11 3	3 9
19th March, 1928 ..	..	..	0 15 0	5 0
22nd July, 1929 ..	..	..	1 0 3	5 0
3rd September, 1929 ..	..	..	1 5 0	5 0
10th October, 1929 ..	..	..	1 10 0	5 0
18th December, 1929 ..	..	..	1 17 6	5 0
28th January, 1930 ..	..	..	2 6 3	6 3
17th February, 1930 ..	..	..	2 16 3	6 3
10th March, 1930 ..	..	..	3 16 3	6 3
24th March, 1930 ..	..	..	6 6 3	3 9
9th October, 1930 ..	..	..	8 15 0	5 0
6th January, 1931 ..	..	..	15 6 3	3 9
13th January, 1931 ..	..	..	18 3 9	3 9
17th January, 1931 ..	..	..	25 5 0	5 0
29th January, 1931 ..	..	..	30 5 0	5 0
3rd December, 1931 ..	..	..	25 5 0	5 0

The "Commission" which represents the Banks' "turn" on each £100 sterling exchanged has been computed by taking half the difference between the buying and selling rates.

(ii) *Sterling-Dollar rates.* The average of the daily quotations of the London-New York exchange rates are given for each month from January, 1933, to September, 1938, in the subjoined table.

STERLING-DOLLAR RATES.—AVERAGE RATE FOR EACH MONTH.

Month.	1933.	1934.	1935.	1936.	1937.	1938.
	\$ to £ Stg.	\$ to £ Stg.	\$ to £ Stg.	\$ to £ Stg.	\$ to £ Stg.	\$ to £ Stg.
January ..	3.372	5.056	4.895	4.960	4.908	5.000
February ..	3.422	5.019	4.875	4.996	4.894	5.018
March ..	3.436	5.089	4.776	4.971	4.885	4.985
April ..	3.587	5.154	4.835	4.944	4.916	4.979
May ..	3.933	5.105	4.890	4.971	4.939	4.965
June ..	4.141	5.059	4.936	5.020	4.935	4.960
July ..	4.643	5.042	4.956	5.023	4.967	4.931
August ..	4.503	5.067	4.971	5.027	4.983	4.881
September ..	4.660	4.996	4.933	5.041	4.961	4.805
October ..	4.668	4.942	4.908	4.900	4.956	..
November ..	5.136	4.990	4.925	4.888	4.994	..
December ..	5.118	4.946	4.929	4.907	4.997	..

(iii) *Interstate.* Exchange rates between the several capital cities of the States as 30th June, 1937, were as follows:—

INTERSTATE EXCHANGE RATES, 30TH JUNE, 1937.

And—						
Between.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart and Launceston.
	Rate per cent.	Rate per cent.	Rate per cent.	Rate per cent.	Rate per cent.	Rate per cent.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Sydney ..	..	2 6	2 6	5 0	10 0	5 0
Melbourne ..	2 6	..	7 6	2 6	7 6	5 0
Brisbane ..	2 6	7 6	..	10 0	12 6	10 0
Adelaide ..	5 0	2 6	10 0	..	5 0	7 6
Perth ..	10 0	7 6	12 6	5 0	..	12 6
Hobart and Launceston ..	5 0	5 0	10 0	7 6	12 6	..

§ 2. Savings Banks.

1. *General.*—The inauguration of Savings Banks in Australia dates from the year 1819, when a private Savings Bank was opened in Sydney, New South Wales. In 1832 the legislature created "the Savings Bank of New South Wales" under the control of trustees, and shortly after its establishment the funds of the private Savings Bank were transferred to the new institution. In the other States provision for placing deposits with Savings Banks dates from 1841 in Victoria; 1854 in Queensland; 1840 in South Australia; 1863 in Western Australia (a Savings Bank was opened in 1856 but was closed a year later); 1835 in Launceston; and 1845 in Hobart. These early banks functioned as trustee Savings Banks, but, with the exception of the Hobart and Launceston institutions, were later absorbed by or amalgamated with Government Savings Banks.

Post Office Savings Banks were established in all States except South Australia dating from 1863 onwards. After the Federation of the Australian States in 1900 Post Offices were controlled by the Commonwealth Government, but they continued to act as Savings Bank agencies for State institutions until the establishment of the Commonwealth Bank in 1912, when they acted as agents for that institution.

Savings Banks at present operating are the Commonwealth Savings Bank (all States); State Savings Bank of Victoria; State Savings Bank of South Australia; and the two trustee Banks—Hobart and Launceston.

2. The Commonwealth Savings Bank.—The Commonwealth Savings Bank opened for business in Victoria on the 15th July, 1912; in Queensland on the 16th September, 1912; in the Northern Territory on the 21st October, 1912; and in New South Wales, South Australia and Western Australia on the 13th January, 1913. The Tasmanian State Savings Bank was absorbed by the Commonwealth Bank in January, 1913, the Queensland State Savings Bank was taken over in 1920 and the New South Wales and Western Australian State Savings Banks in 1931. The Savings Bank Department was separated from the General Bank on 9th June, 1928, and has since then operated independently, publishing its own balance-sheets and profit and loss accounts.

3. Recent Amalgamations.—Particulars relating to the absorption by the Commonwealth Savings Bank of the Government Savings Banks of New South Wales, and the State Savings Bank of Western Australia were given in Official Year Book, No. 29.

4. Extension of Facilities.—The prime object of the foundation of Savings Banks in Australia was the encouragement of thrift—deposits of one shilling and upwards being accepted—nevertheless the facilities offered, while preserving the original object, have led to developments in another direction. Although depositors may not operate on their accounts by means of cheques, they have practically all the other advantages of a current account in addition to receiving interest on their minimum monthly balances, while no charge is made by the banks for keeping the accounts.

For many years considerable use has been made of the Savings Bank account as an alternative to maintaining a fixed deposit with a Cheque-paying Bank. Deposits in Savings Banks may be withdrawn at any time with a minimum loss of interest, the rate of which is in some States greater than that offered by trading banks for six months' deposits.

5. Classification of Depositors' Balances.—The classification of deposits published by Savings Banks does not permit of a fully detailed analysis with respect to Australia as a whole, but information supplied to the Royal Commission on Monetary and Banking Systems for all Savings Banks except the Hobart Trustee Savings Bank shows that at 30th June, 1936, the amount on deposit in accounts with balances of less than £100 represented 21 per cent. of the total deposits; balances of over £100 but under £250, 21 per cent.; over £250 but under £500, 23 per cent.; over £500 but under £1,000, 25 per cent.; while those of over £1,000 accounted for 10 per cent. School, Penny Bank and small inoperative accounts were excluded in determining the above percentages.

6. Number of Accounts.—No statement is shown herein regarding the number of accounts because in some States it is possible for the same person to have an account in the Commonwealth Savings Bank as well as in the State Savings Bank. The effect of this multiplication of accounts was demonstrated by the reduction of numbers which followed the amalgamations referred to in par. 3 *ante*.

7. Rates of Interest on Deposits.—The "Premiers Plan" of 1931 provided, *inter alia*, for the reduction of bank rates of interest on deposits and advances. The Commonwealth Savings Bank reduced the rate of interest on depositors' balances by one per cent. from 1st July, 1931, and the other Savings Banks subsequently took similar action. The statements given hereunder show the rates of interest allowed at intervals since 1932 by State or Trustee Banks and by the Commonwealth Bank.

The table hereunder refers to interest rates allowed by State Savings Banks:—
STATE AND TRUSTEE SAVINGS BANKS.—INTEREST RATES ON DEPOSITS.

Particulars.	State Savings Bank.			Trustee Savings Banks.	
	Victoria.	South Australia. (a)		Hobart.	Launceston.
	£1,000.	£1,000.		£300.	£300.
		£1 to £500.	£501 to £1,000.		
Interest-bearing Limit.					
Rates at 30th June—	%	%	%	%	%
1932	3 ; 3½ (b)	3½	3½	3½ ; 4 (c)	3½ ; 4 (c)
1933	2½ ; 3 (b)	3	3	2½ ; 3 (c)	2½ ; 3 (c)
1934	2¼ ; 3 (b)	3	2½	2½ ; 3 (c)	2½ ; 3 (c)
1935	2 ; 2½ (b)	2½	2½	2½ ; 3 (c)	2½ ; 3 (c)
1936	2 ; 2½ (b)	2½	2½	2½ ; 3 (c)	2½ ; 3 (c)
1937	2 ; 2½ (b)	2½	2½	3 ; 3½ (c)	3 ; 3½ (c)
1938	2 ; 2½ (b)	2½	2½	3 ; 3½ (c)	3 ; 3½ (c)

(a) Interest on deposits in accounts closed during the year is generally allotted at a lower rate than that applicable to accounts remaining open. (b) Deposit stock. (c) Deposits fixed for twelve months.

Particulars regarding the rates allowed by the Commonwealth Savings Bank are incorporated in the following table:—

COMMONWEALTH SAVINGS BANK.—INTEREST RATES ON DEPOSITS.(a)

Rate at 30th June—	New South Wales, Victoria, South Australia, Western Australia and Tasmania.			Queensland.	
	£1 to £500.	£501 to £1,000.	£1,001 to £1,300.	£1 to £500.	£501 to £2,000.
	%	%	%	%	%
1932	3	2½	2	3	2½
1933	2½	2	2	2½	2
1934	2¼	1¾	1¾	2½	1¾
1935	2	1¾	1¾	2	1¾
1936	2	1¾	1¾	2	1¾
1937	2	1¾	1¾	2	1¾
1938	2	1¾	1¾	2	1¾

(a) Interest bearing limit in all States except Queensland is £1,300. In Queensland it is £2,000. Interest is allowed by the Commonwealth Savings Bank at the rate shown under £1 to £500 on the first £500 of any deposit and at the rates shown under £501 to £1,000 on the second £500, etc.

On 1st July, 1932, a reduction of one-quarter of one per cent. in the rate of interest allowed on deposits became effective, followed by a similar reduction from 1st November, 1932. Further reductions of one-quarter of 1 per cent. operated from 1st June, 1934, and 1st January, 1935, respectively.

8. **Statistical Returns.**—Commencing from July, 1931, monthly returns have been furnished by Savings Bank authorities, and the collated data are disseminated in the form of monthly press notices. In addition, the particulars are published in the Quarterly Summary of Australian Statistics and the Monthly Review of Business Statistics issued

by the Commonwealth Statistician. The information given in the following paragraphs relates to the deposits at the 30th June in each year. For convenience of reference the information has been grouped under the following headings:—

- (i) All Savings Banks;
- (ii) Commonwealth Savings Banks; and
- (iii) State (including Trustee Banks in Tasmania) Savings Banks.

9. All Savings Banks.—(i) *Returns for years 1936-37 and 1937-38.* The following statement gives details of the business transacted by all Savings Banks for the years 1936-37 and 1937-38.

ALL SAVINGS BANKS.—PARTICULARS, 1936-37 AND 1937-38.

State or Territory.	Amount on Deposit at beginning of Period.	Excess of Deposits over Withdrawals during year.	Interest Added during year.	Amount on Deposit at end of Period.
1936-37.				
	£	£	£	£
New South Wales	79,999,948	461,992	1,490,459	81,952,399
Victoria	73,890,120	419,751	1,410,587	75,720,458
Queensland	27,131,659	—333,098	505,877	27,304,438
South Australia	25,308,586	553,790	643,505	26,505,941
Western Australia	11,517,220	103,717	213,857	11,834,794
Tasmania	6,818,300	234,631	161,946	7,214,877
Northern Territory	57,700	355	1,072	59,127
Australian Capital Territory ..	238,685	15,898	4,544	259,127
Total	224,962,218	1,457,036	4,431,907	230,851,161
1937-38.				
	£	£	£	£
New South Wales	81,952,399	2,512,472	1,550,814	86,015,685
Victoria	75,720,458	1,686,815	1,469,727	78,877,000
Queensland	27,304,438	382,097	519,922	28,206,457
South Australia	26,505,941	70,973	666,743	27,243,657
Western Australia	11,834,794	—16,446	219,138	12,037,486
Tasmania	7,214,877	298,959	177,674	7,691,510
Northern Territory	59,127	7,685	1,109	67,921
Australian Capital Territory ..	259,127	28,278	5,056	292,461
Total	230,851,161	4,970,833	4,610,183	240,432,177

(ii) *Deposits—(a) Years 1934 to 1938.* The table hereunder shows for all Savings Banks the amount at credit of depositors and the average deposits per head of population at 30th June, 1934 to 1938.

ALL SAVINGS BANKS.—DEPOSITS.

30th June.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Ter.	Aust. Cap. Ter.	All States.
TOTAL.									
1934	£ 75,714,070	£ 69,971,411	£ 24,831,273	£ 23,437,500	£ 10,398,972	£ 6,039,128	£ 44,251	£ 236,450	£ 210,976,647
1935	77,900,402	72,018,713	20,100,590	24,184,988	10,929,010	6,120,914	53,541	229,896	217,949,663
1936	79,990,918	73,890,120	27,121,050	25,308,580	11,517,220	6,818,300	57,700	238,688	224,662,218
1937	81,952,309	75,720,458	27,304,438	26,505,941	11,834,704	7,314,877	59,127	259,127	230,851,161
1938	86,015,685	78,877,000	28,206,457	27,243,657	12,037,486	7,691,510	67,921	292,461	240,432,177

PER HEAD OF POPULATION.

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1934	28 17 7	38 4 10	25 18 6	40 3 7	23 10 5	26 9 10	8 19 10	25 8 10	31 11 0
1935	29 9 2	39 3 8	27 1 3	41 7 1	24 10 5	28 2 3	10 9 6	24 15 2	32 8 3
1936	30 0 3	40 0 2	27 13 3	43 1 10	25 11 7	29 14 1	10 17 2	24 8 1	33 4 1
1937	30 8 9	40 16 3	27 10 5	45 0 6	26 1 1	31 0 1	10 16 9	25 4 4	33 15 10
1938	31 12 3	42 5 10	28 2 2	46 0 5	26 3 4	32 14 7	12 7 0	25 8 8	34 17 7

For a number of years prior to the depression deposits were steadily rising and at 30th September, 1929, the aggregate amount was £225,963,165. As the depression developed withdrawals were heavy and the amount on deposit declined to £193,375,397 in June, 1931. (The lowest point, although not actually recorded, was probably reached in May, 1931.) During the next twelve months the deposits rose to £197,966,307, and they have since risen year by year until the maximum level of £240,432,177 was recorded at 30th June, 1938.

(b) *Deposits per head and Purchasing Power.* Particulars of the deposits per head of population, actual and adjusted to purchasing power by the application of retail price index-numbers at 30th June in each year from 1928 to 1938, are given in the following table:—

ALL SAVINGS BANKS.—DEPOSITS PER HEAD OF POPULATION.

At 30th June—				Actual.		Adjusted to Purchasing Power. (a)	
				£	Index Number.	£	Index Number.
1928	..	..	..	34.14	1928 = 1000	34.14	1928 = 1000
1929	..	..	..	35.26	1033	34.67	1016
1930	..	..	..	33.65	986	34.30	1005
1931	..	..	..	29.63	868	34.10	999
1932	..	..	..	30.10	882	36.48	1069
1933	..	..	..	30.51	894	38.52	1128
1934	..	..	..	31.55	924	39.14	1146
1935	..	..	..	32.41	949	39.77	1165
1936	..	..	..	33.20	972	40.00	1172
1937	..	..	..	33.79	990	39.52	1158
1938	..	..	..	34.88	1022	39.59	1160

(a) On the basis of the "C" Series of Retail Price Index-numbers. Averages for June quarter in each year.

Since 1921 deposits per head increased by roughly 3 per cent. per annum until they reached a maximum of £35.26 in 1929. The figure declined sharply in the next two years, but rose by annual increments thereafter to £34.88 in 1938, which represents an increase of 21 per cent. on the 1921 figure. When deposits are adjusted to purchasing power a more favourable position is disclosed. From 1927 to 1936 a steady increase was recorded in the purchasing power of deposits and although slightly under the level of 1936 the figure for 1938 represented a gain of 16 per cent. over the past ten years.

In interpreting the above figures it should be remembered that Savings Bank accounts are used to some extent by institutions and business people, as well as by individuals for the investment of personal savings. The relative extent to which Savings Bank accounts are used for business purposes, etc., may, and probably does, fluctuate considerably from time to time.

10. **Commonwealth Savings Bank.**—(i) *Returns for Years 1936-37 and 1937-38.* Returns for the States and Territories for the years 1936-37 and 1937-38 have been incorporated in the tables below.

COMMONWEALTH SAVINGS BANK.—RETURNS, 1936-37 AND 1937-38.

State or Territory.	Amount on Deposit at beginning of Period.	Excess of Deposits over Withdrawals during year.	Interest Added during year.	Amount on Deposit at end of Period.
1936-37.				
	£	£	£	£
New South Wales	79,999,948	461,992	1,490,459	81,952,399
Victoria	9,487,318	301,403	170,545	9,905,266
Queensland	27,131,659	—333,098	505,877	27,304,438
South Australia	2,702,422	163,226	51,536	2,917,184
Western Australia	11,517,220	103,717	213,857	11,834,794
Tasmania	1,981,090	105,071	37,692	2,123,853
Northern Territory	57,700	355	1,072	59,127
Australian Capital Territory ..	238,685	15,898	4,544	259,127
Total	133,116,042	818,564	2,481,582	136,416,188
1937-38.				
	£	£	£	£
New South Wales	81,952,399	2,512,472	1,550,814	86,015,685
Victoria	9,905,266	579,607	190,095	10,734,968
Queensland	27,304,438	382,097	519,922	28,206,457
South Australia	2,917,184	120,093	54,512	3,091,789
Western Australia	11,834,794	—16,446	219,138	12,037,486
Tasmania	2,123,853	55,946	40,387	2,220,186
Northern Territory	59,127	7,685	1,109	67,921
Australian Capital Territory ..	259,127	28,278	5,056	292,461
Total	136,416,188	3,669,732	2,581,033	142,666,953

(ii) *Deposits—Years 1934 to 1938.* The amount on deposit with the Commonwealth Savings Bank in each State, in the Territories of Papua and New Guinea, and in London, at the 30th June in each of the years 1934 to 1938 was as follows :—

COMMONWEALTH SAVINGS BANK.—DEPOSITS.

Place of Deposit.	At 30th June—				
	1934.	1935.	1936.	1937.	1938.
	£	£	£	£	£
New South Wales	75,714,070	77,906,402	79,999,948	81,952,399	86,015,685
Victoria	8,361,264	8,910,707	9,487,318	9,965,266	10,734,968
Queensland	24,834,273	26,190,599	27,131,659	27,304,438	28,206,457
South Australia	2,304,751	2,508,233	2,702,422	2,917,184	3,091,789
Western Australia	10,398,972	10,929,010	11,517,220	11,834,794	12,037,486
Tasmania	1,714,882	1,854,283	1,981,090	2,123,853	2,220,186
Northern Territory	44,251	53,541	57,700	59,127	67,921
Australian Capital Territory ..	230,436	229,896	238,685	259,127	292,461
Total	123,608,899	128,588,671	133,116,042	136,416,188	142,666,953
Papua and New Guinea (a) ..	145,000	162,646	181,048	189,251	215,864
London (a)	310,579	381,622	531,764	526,653	550,307
Grand Total	124,065,378	129,132,939	133,831,854	137,132,092	143,433,124

(a) Not included in the figures given in pars. 9 (i) and (ii) and 10 (i).

(iii) *Balance-sheets 30th June, 1937 and 1938.* The Commonwealth Savings Bank publishes a half-yearly balance-sheet, and the statement hereunder shows the position at the 30th June, 1937 and 1938.

COMMONWEALTH SAVINGS BANK.(a)—BALANCE-SHEETS 30TH JUNE, 1937 AND 1938.

Liabilities.		Assets.	
		30th June, 1937.	
	£		£
Reserve Fund	2,409,556	Coin, Cash Balances and Money	
Depositors' Balances ..	137,132,093	at Short Call	18,385,871
Other Liabilities	6,179,632	Australian Notes	178,826
		Government Securities ..	91,899,837
		Securities of Municipal and	
		Other Public Authorities ..	31,050,063
		Bank Premises	919,032
		Other Assets	3,287,652
	145,721,281		145,721,281
		30th June, 1938.	
	£		£
Reserve Fund	2,555,332	Coin, Cash Balances and Money	
Depositors' Balances ..	143,433,124	at Short Call	22,055,221
Other Liabilities	6,721,827	Australian Notes	217,634
		Government Securities ..	94,981,018
		Securities of Municipal and	
		Other Public Authorities ..	31,416,917
		Bank Premises	892,085
		Other Assets	3,147,408
	152,710,283		152,710,283

(a) Includes London, Papua and Territory of New Guinea Branches.

(iv) *Profits.* Under the terms of the Savings Bank Amalgamation Agreements the profits of the Commonwealth Savings Bank in New South Wales, Queensland, Western Australia and Tasmania are equally divided between the Bank and the former controlling authorities in those States. After £196,895 had been so provided for, the net profit of the Commonwealth Savings Bank during 1937–38 was £291,552, one-half of which was paid to the National Debt Sinking Fund and the remainder carried to reserves. The aggregate net profit from the inception of the bank to the 30th June, 1938, was £4,575,897.

II. *State Savings Banks.*—(i) *Returns for 1936–37 and 1937–38.* Particulars of the transactions of all State Savings Banks for the years 1936–37 and 1937–38 are given hereunder. Throughout the following tables the figures for Tasmania refer to the Trustee Savings Banks in Hobart and Launceston. Although the accounts of these institutions are made up for half-yearly periods ending 28th February and 31st August, the managements have furnished particulars of deposits at 30th June from 1929 onwards.

STATE SAVINGS BANKS.—RETURNS, 1936–37 and 1937–38.

State or Territory.	Amount on Deposit at beginning of period.	Excess of Deposits over Withdrawals during year.	Interest Added during year.	Amount on Deposit at end of period.
1936–37.				
	£	£	£	£
Victoria	64,402,802	118,348	1,234,042	65,755,192
South Australia ..	22,606,164	390,564	592,029	23,588,757
Tasmania (a) ..	4,837,210	129,560	124,254	5,091,024
Total	91,846,176	638,472	1,950,325	94,434,973
1937–38.				
	£	£	£	£
Victoria	65,755,192	1,107,208	1,279,632	68,142,032
South Australia ..	23,588,757	—49,120	612,231	24,151,808
Tasmania (a) ..	5,091,024	243,013	137,287	5,471,324
Total	94,434,973	1,301,101	2,029,150	97,765,224

(a) Trustee Savings Banks, Hobart and Launceston.

NOTE.—The State Savings Banks in New South Wales, Queensland, Western Australia and Tasmania have been absorbed by the Commonwealth Savings Bank.

(ii) *Deposits—Years 1933 to 1938.* The following statement shows the amount on deposit with State Savings Banks at the 30th June in each of the years 1933 to 1938.

STATE SAVINGS BANKS.—DEPOSITS.

State or Territory.	At 30th June—					
	1933.	1934.	1935.	1936.	1937.	1938.
	£	£	£	£	£	£
Victoria	60,226,071	61,610,147	63,108,006	64,402,802	65,755,192	68,142,032
South Australia ..	20,311,266	21,132,755	21,676,755	22,000,104	23,588,757	24,151,808
Tasmania (a) ..	4,219,754	4,324,246	4,575,631	4,837,210	5,091,024	5,471,324
Total	84,757,091	87,067,148	89,360,392	91,846,176	94,434,973	97,765,224

(a) Trustee Savings Banks, Hobart and Launceston.

(iii) *Assets 1936-37 and 1937-38.* At 30th June, 1937, the assets of all State Savings Banks amounted to £102,833,758, distributed as shown hereunder.

STATE SAVINGS BANKS.—ASSETS, 30TH JUNE, 1937.

Particulars.	Victoria.	South Australia.	Tasmania. (a)	Total.
	£	£	£	£
Government Securities	29,693,400	12,732,242	2,288,333	44,713,975
Municipal Securities	1,933,636	414,357	596,519	2,944,512
Other Public Securities	15,306,249	198,181	49,027	15,553,457
Mortgages	1,746,534	5,474,570	1,239,890	8,460,994
Outstanding Interest, Dividends and Rents	631,089	235,901	56,108	923,098
War Service Homes	9,001	..	..	9,001
Landed and House Property	971,156	156,434	12,500	1,140,090
Fixed Deposits	18,003,000	4,379,500	910,000	23,292,500
Cash in hand, in transit and on Current Account	3,160,612	2,107,458	518,811	5,786,881
All other Assets	7,035	1,274	941	9,250
Total Assets	71,461,712	25,699,917	5,672,129	102,833,758

(a) Year ended 31st August, 1937. See par. (i).

At 30th June, 1938, the assets amounted to £106,709,457, distributed as shown hereunder.

STATE SAVINGS BANKS.—ASSETS, 30th JUNE, 1938.

Particulars.	Victoria.	South Australia.	Tasmania. (a)	Total.
	£	£	£	£
Government Securities	30,070,280	13,295,625	2,351,404	45,717,309
Municipal Securities	2,398,308	417,328	732,457	3,548,093
Other Public Securities	15,923,159	198,384	44,433	16,165,976
Mortgages	1,917,072	5,383,151	1,378,918	8,679,141
Outstanding Interest, Dividends and Rents	660,690	236,258	61,358	958,306
War Service Homes	..	..	..	..
Landed and House Property	875,235	134,048	16,291	1,025,574
Fixed Deposits	19,348,000	4,789,750	1,009,000	25,146,750
Cash in hand, in transit and on Current Account	3,012,191	1,939,847	507,803	5,459,841
All other Assets	5,007	1,139	2,321	8,467
Total Assets	74,209,942	26,395,530	6,103,985	106,709,457

(a) Year ended 31st August, 1938. See par. (i).

(iv) *Profit and Loss Accounts, 1936-37 and 1937-38.* Details of the Profit and Loss Accounts of the several State Savings Banks for the year 1936-37 are given in the following table:—

**STATE SAVINGS BANKS.—PROFIT AND LOSS ACCOUNTS FOR YEAR
ENDED 30TH JUNE, 1937.**

Particulars.	Victoria.	South Australia.	Tasmania. (a)	Total.
<i>Dr.</i>	£	£	£	£
Interest allotted to Depositors ..	1,234,042	592,029	141,885	1,967,956
Amount carried to Reserves and Depreciation Funds ..	250,000	146,701	14,000	410,701
Writing off Bank Premises ..	16,100	..	2,086	18,186
Expenses of Management ..	545,078	137,893	31,214	714,185
All other Expenses ..	42,749	20,823	(c) 1,821	65,393
Balance carried forward..	165,652	(b) 135,221	91,785	392,658
<i>Total</i>	2,253,621	1,032,667	282,791	3,569,079
<i>Cr.</i>				
Balance brought forward ..	148,743	(d) 138,891	90,687	378,321
Interest, Dividends and Rents ..	2,104,878	893,776	192,104	3,190,758
<i>Total</i>	2,253,621	1,032,667	282,791	3,569,079

(a) Year ended 31st August, 1937; see par. (i). (b) Includes £40,000. provision for interest accrued on Depositors' Balances from 7th to 30th June, 1937. (c) Includes £500. Taxation Reserve. (d) Includes Reserve brought forward from 1935-36 (Provision for Interest accrued on Depositors' Balances from 7th to 30th June, 1936, £40,000).

Details of the Profit and Loss Accounts of the several State Savings Banks for the year 1937-38 are given in the following table:—

**STATE SAVINGS BANKS.—PROFIT AND LOSS ACCOUNTS FOR YEAR
ENDED 30TH JUNE, 1938.**

Particulars.	Victoria.	South Australia.	Tasmania. (a)	Total.
<i>Dr.</i>	£	£	£	£
Interest allotted to Depositors ..	1,279,632	612,231	153,527	2,045,390
Amount carried to Reserves and Depreciation Funds ..	250,000	136,441	18,500	404,941
Writing off Bank Premises ..	110,700	..	2,501	113,201
Expenses of Management ..	553,687	146,374	33,052	733,713
All other Expenses ..	48,447	20,235	(c) 1,943	70,625
Balance carried forward..	176,496	(b) 147,931	92,942	417,369
<i>Total</i>	2,418,962	1,063,212	303,065	3,785,239
<i>Cr.</i>				
Balance brought forward ..	165,652	(d) 135,221	91,785	392,658
Interest, Dividends and Rents ..	2,253,310	927,991	211,280	3,392,581
<i>Total</i>	2,418,962	1,063,212	303,065	3,785,239

(a) Year ended 31st August, 1938; see par. (i). (b) Includes £50,000. provision for interest accrued on Depositors' Balances from 7th to 30th June, 1938. (c) Includes £500. Taxation Reserve. (d) Includes Reserve brought forward from 1936-37 (Provision for Interest accrued on Depositors' Balances from 7th to 30th June, 1937, £40,000).

C. COMPANIES.

§ 1. General.

Statistics available in regard to registered companies embrace (a) Returns relating to Trustees, Executors and Agency Companies; (b) Returns relating to Registered Building and Investment Societies; and (c) Returns relating to Registered Co-operative Societies.

§ 2. Trustees, Executors and Agency Companies.

Returns for 1937 are available for eight Victorian, two New South Wales, one Queensland, four South Australian, two Western Australian and four Tasmanian companies. The paid-up capital of these twenty-one companies amounted to £1,355,952; reserve funds and undivided profits to £1,170,440; other liabilities, £427,053; total liabilities, including capital, £2,953,445. Among the assets are included—Deposits with Governments, £320,523; other investments in public securities, fixed deposits, etc., £599,610; loans on mortgage, £507,207; property owned, £1,062,961; advances to clients, £189,745; cash, £110,476; other assets, £162,923. Of the twenty-one companies, ten show the total amount of the estates, etc., under administration, the total for 1937 being approximately £156.2 millions. (The report of the Royal Commission on Monetary and Banking Systems shows the total value of estates administered by all companies as approximately £220 millions.) In respect of the twenty-one companies, net profits for the year totalled £169,557, of which £120,051 was paid in dividends.

§ 3. Registered Building and Investment Societies.

1. Summary.—Returns have been received relating to 180 Societies, but the information is not exhaustive, as particulars regarding unimportant organizations are not included.

REGISTERED BUILDING AND INVESTMENT SOCIETIES.—SUMMARY, 1936.

Particulars.	N.S.W. 1935-36.	Vic. 1936.	Q'land. 1935-36.	S. Aust. 1936.	W. Aust. 1935-36.	Tas. 1936.	Total.
Societies making returns—							
Permanent .. No.	10	21	8	6	6	4	55
Terminating .. No.	97	3	6	13	6	..	125
Total .. No.	107	24	14	19	12	4	180
Number of shareholders ..	(d) 22,846	9,303	11,279	9,257	23,804	4,617	81,106
Number of shares ..	(c) 187,344	(a)	2,403,188	33,564	(a)	44,000	2,668,096b
Number of borrowers ..	(e) 3,208	11,669	6,405	2,622	3,775	1,470	29,149
Income for year from interest .. £	138,736	305,580	470,558	16,929	75,837	36,955	1,044,595
Working expenses for year .. £	75,869	158,813	13,497	8,967	13,987	14,412	285,545
Amount of deposits during year .. £	334,489	1,503,155	4,791	107,717	62,999	7,965	2,021,116
Repayment of loans during year .. £	525,572	840,609	371,612	76,256	262,735	102,081	2,178,865
Loans granted during year .. £	634,258	1,048,178	296,439	74,875	201,575	73,976	2,389,301

(a) Not available. (b) Exclusive of Victoria and Western Australia. (c) Includes 155,976 shares in Star Bowkett and terminating societies and excludes investment societies. (d) Includes 19,895 shareholders in Star Bowkett Societies. (e) Permanent Societies only.

2. **Liabilities and Assets.**—The balance-sheets of the companies in respect of which particulars of liabilities and assets are stated hereunder cover periods ended during the year 1936. The figures quoted for the States of South Australia and Tasmania refer to the calendar year 1936, while those for the remaining States are for the fiscal year 1935–36.

REGISTERED BUILDING AND INVESTMENT SOCIETIES.—LIABILITIES, 1936.

State.	Paid-up Capital or Subscriptions.	Reserve Funds. (a)	Deposits.	Bank Overdrafts and other Liabilities.	Total Liabilities.
	£	£	£	£	£
New South Wales(b) ..	2,204,910	631,985	565,648	71,745	3,474,288
Victoria ..	2,010,142	851,748	1,719,571	338,554	4,920,015
Queensland ..	1,510,673	50,255	14,342	74,659	1,649,929
South Australia ..	565,924	67,565	92,456	2,612	728,557
Western Australia ..	1,087,071	10,000	71,279	58,471	1,226,821
Tasmania ..	335,350	106,584	233,463	8,010	683,407
Total ..	7,714,070	1,718,137	2,696,759	554,051	12,683,017

(a) Includes Profit and Loss Account.

(b) Excludes eight terminating Societies.

REGISTERED BUILDING AND INVESTMENT SOCIETIES.—ASSETS, 1936.

State.	Advances on Mortgage.	Landed and House Pro- perty, Furni- ture, etc.	Cash in Hand and on Deposit and other Assets.	Total Assets.
	£	£	£	£
New South Wales (c) ..	2,866,822	(a) 235,449	(b) 372,017	3,474,288
Victoria ..	4,521,212	217,877	180,926	4,920,015
Queensland ..	1,588,528	16,306	45,035	1,649,929
South Australia ..	657,736	29,534	41,287	728,557
Western Australia ..	1,154,178	44,792	27,851	1,226,821
Tasmania ..	539,717	10,150	133,540	683,407
Total ..	11,328,193	554,168	800,656	12,683,017

(a) Permanent Societies only.
terminating Societies.

(b) Includes Landed and House Property, Furniture, etc., of
(c) Excludes eight terminating Societies.

§ 4. Co-operative Societies.

1. **General.**—Prior to 1931 the returns relating to Co-operative Societies were divided into two classes—(i) those engaged in the manufacture and marketing of primary products and trade requirements; and (ii) those engaged in retailing general household require-

ments. The former may be described briefly as Producers' Co-operative Societies and the latter as Consumers' Co-operative Societies. Particulars of those Producers' Societies which are also Consumers' Societies were compiled separately for the first time for the year 1931. The particulars given for New South Wales relate to societies registered under the Co-operation Act 1923-1929.

CO-OPERATIVE SOCIETIES.—SUMMARY, 1936.

Particulars.	N.S.W. 1935-36. (a)	Vic. 1935-36.	Qld. 1935-36.	S.A. 1936.	W.A. 1935-36.	Tas. 1935-36.	Total.
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PRODUCERS' SOCIETIES.

Number of Societies	108	61	51	30	3	11	264
Number of Branches	(c)	19	26	11	7	19	(d) 82
Number of Members	50,565	42,140	39,739	6,869	4,333	7,296	150,942
Gross Turnover (Sales)	£ 12,980,739	3,648,338	7,471,253	1,130,050	447,756	399,801	26,077,937
Other Income	£ 183,783	241,259	98,638	111,956	24,711	15,061	675,408
Total Income	£ 13,164,522	3,889,597	7,569,891	1,242,006	472,467	414,862	26,753,345
Total Purchases during Year	£ 11,128,229	2,966,559	5,721,681	906,592	323,208	296,270	21,342,608
Total Expenditure (b)	£ 13,223,504	3,778,445	7,592,287	1,241,531	434,861	399,543	26,670,171
Rebates and Bonuses	£ 66,727	32,934	905	30,751	22,890	1,584	155,791
Dividends on Share Capital	£ 35,833	23,431	17,050	8,549	2,892	1,432	89,187

CONSUMERS' SOCIETIES.

Number of Societies	46	17	58	7	5	3	136
Number of Branches	(c)	4	22	41	(c)	2	(d) (e) 69
Number of Members	34,909	9,703	37,716	38,174	1,642	651	122,795
Gross Turnover (Sales)	£ 1,953,585	457,218	337,605	786,686	74,093	61,775	3,670,362
Other Income	£ 24,040	13,527	198,531	18,661	2,510	873	258,142
Total Income	£ 1,977,625	470,745	536,136	805,347	76,603	62,048	3,928,504
Total Purchases during Year	£ 1,475,691	383,693	308,109	621,704	60,630	50,216	2,901,111
Total Expenditure (b)	£ 1,875,763	462,391	491,277	770,071	74,709	60,654	3,734,865
Rebates and Bonuses	£ 83,663	19,758	17,779	32,718	1,189	710	155,817
Dividends on Share Capital	£ 15,824	3,276	19,643	13,852	381	281	53,257

SOCIETIES WHICH ARE BOTH PRODUCERS' AND CONSUMERS'.

Number of Societies	9	12	3	57	81
Number of Branches	2	28	1	44	75
Number of Members	4,156	12,852	549	14,053	31,610
Gross Turnover (Sales)	£ 995,628	2,532,528	125,175	1,294,827	4,948,158
Other Income	£ 8,626	128,245	14,399	213,913	365,183
Total Income	£ 1,004,254	2,660,773	139,574	1,508,740	5,313,341
Total Purchases during Year	£ 836,658	2,011,656	119,745	1,123,811	4,091,870
Total Expenditure (b)	£ 979,670	2,620,351	133,804	1,464,340	5,198,165
Rebates and Bonuses	£ 8,470	29,797	2,725	2,702	43,694
Dividends on Share Capital	£ 3,872	2,440	1,432	4,949	12,693

(a) Particulars relate to Societies registered under Co-operation Act 1923-1929.
 expenses and purchases. (c) Not available. (d) Excluding New South Wales.
 ing Western Australia. (e) Excluding

(b) Working
 (e) Excluding

2. **Liabilities and Assets.**—The next table gives the liabilities and assets.
CO-OPERATIVE SOCIETIES.—LIABILITIES AND ASSETS, 1936.

Particulars.	N.S.W.(a) 1935-36.	Vic. 1935-36.	Qld. 1935-36.	S.A. 1936.	W.A. 1935-36.	Tas. 1935-36.	Total.
PRODUCERS' SOCIETIES.							
Liabilities—	£	£	£	£	£	£	£
Paid-up Capital ..	980,346	963,515	628,442	194,362	53,338	90,936	2,910,939
Loan Capital ..	(b)	183,181	571,023	280,743	4,500	33,002	1,072,449
Bank Overdraft ..	570,142	637,967	459,080	43,988	..	28,613	1,739,790
Accumulated Profits ..	869,141	132,131	50,553	54,677	11,585	11,878	3,030,500
Reserve Funds ..		295,010	1,325,095	245,737	47,449	10,545	
Sundry Creditors ..		331,303	699,758	259,120	45,191	40,452	
Other Liabilities ..	1,422,839	78,058	103,784	325,849	6,425	8,502	3,321,200
Total Liabilities ..	3,842,468	2,591,165	3,838,338	1,404,551	168,488	229,928	12,074,938
Assets—							
Land and Buildings ..	1,865,465	1,221,673	653,334	184,221	48,759	104,800	6,489,086
Machinery, Plant and other fixed Assets ..			2,018,981	307,007	44,304	40,542	
Stocks ..			355,094	590,207	15,168	30,925	
Sundry Debtors ..	852,254	713,397	557,199	143,873	25,940	40,275	2,332,938
Cash in hand and on deposit ..	186,585	94,907	107,894	60,163	23,345	2,890	474,784
Profit and Loss Account ..	..	112,031	11,254	12,351	..	5,092	140,728
Other Assets ..	290,600	125,702	134,582	106,639	11,972	5,404	674,899
Total Assets ..	3,842,468	2,591,165	3,838,338	1,404,551	168,488	229,928	12,074,938

CONSUMERS' SOCIETIES.

Liabilities—	£	£	£	£	£	£	£
Paid-up Capital ..	491,272	133,320	430,963	404,474	13,517	21,154	1,491,700
Loan Capital ..	(b)	40,072	10,036	137,027	..	5,216	192,353
Bank Overdraft ..	68,417	08,171	116,052	26,844	4,572	1,543	283,599
Accumulated Profits ..	361,888	27,717	30,621	30,345	2,004	..	753,719
Reserve Funds ..		59,602	90,345	130,165	2,486	9,346	
Sundry Creditors ..		39,798	470,234	26,647	7,340	2,929	
Other Liabilities ..	237,417	4,331	18,045	1,038	482	2,304	811,185
Total Liabilities ..	1,158,994	371,011	1,176,098	756,560	30,401	42,492	3,535,556
Assets—							
Land and Buildings ..	435,883	124,946	311,077	248,352	7,707	16,178	1,231,152
Machinery, Plant and other fixed Assets ..			35,778	47,366	1,961	1,004	
Stocks ..			424,408	189,819	8,851	12,777	
Sundry Debtors ..	297,617	36,304	671,120	86,758	3,480	6,518	637,836
Cash in hand and on deposit ..	241,737	105,557	..	..	..	..	212,012
Profit and Loss Account ..	35,476	42,623	91,277	97,175	849	4,865	272,265
Other Assets ..	..	5,827	1,409	11,813	650	78	19,783
Total Assets ..	1,158,994	371,011	1,176,098	756,560	30,401	42,492	3,535,556

SOCIETIES WHICH ARE BOTH PRODUCERS' AND CONSUMERS'.

Liabilities—	£	£	£	£	£	£	£
Paid-up Capital ..	..	80,326	196,782	18,574	395,931	..	691,613
Loan Capital ..	..	7,286	407,035	..	109,961	..	584,282
Bank Overdraft ..	..	38,311	142,373	9,375	368,078	..	558,137
Accumulated Profits ..	..	52,170	49,838	1,882	19,935	..	123,825
Reserve Funds ..	..	65,745	410,881	10,746	76,068	..	564,337
Sundry Creditors ..	..	58,172	172,820	8,453	207,647	..	447,008
Other Liabilities ..	..	10,191	995	1,973	48,480	..	61,639
Total Liabilities ..	..	312,201	1,380,730	51,003	1,286,907	..	3,030,931
Assets—							
Land and Buildings ..	..	168,915	188,684	6,869	186,383	..	1,489,773
Machinery, Plant and other fixed Assets ..	..		854,975	9,589	74,358	..	
Stocks ..	..		91,896	10,927	253,403	..	
Sundry Debtors ..	..	66,252	167,552	22,146	405,605	..	721,555
Cash in hand and on deposit ..	..	3,546	25,664	472	23,275	..	52,957
Profit and Loss Account ..	..	..	5,607	..	59,215	..	64,822
Other Assets ..	..	19,572	46,352	1,000	224,758	..	291,682
Total Assets ..	..	312,201	1,380,730	51,003	1,286,907	..	3,030,931

(a) Particulars relate to Societies registered under Co-operation Act 1923-1929.

(b) Not available.

D. INSURANCE.

§ 1. General.

Although insurance business is conducted under State laws where such laws are in existence, or otherwise under various Companies Acts or Special Acts, Section 51 of the Commonwealth Constitution Act confers the necessary powers on the Commonwealth Parliament to legislate in regard to "insurance other than State insurance; also State insurance extending beyond the limits of the State concerned." Legislation by the Commonwealth Parliament includes the Life Assurance Companies Act 1905 limiting the amount of assurance payable on the death of children, the Marine Insurance Act 1909 defining the limits of marine insurance and regulating the terms of contracts, etc., and the Insurance Act 1932-1937, the principal features of which are given hereunder.

Companies, persons or associations of persons carrying on insurance business in the Commonwealth or in any Territory of the Commonwealth are required to deposit money or approved securities with the Commonwealth Treasurer, to the extent specified in the schedule hereunder.

SCHEDULE OF DEPOSITS.

Class of Company.	Life Assurance Business.	Other Insurance Business.
Existing companies (Australian and foreign)	£1,000 for every £5,000 of net liability up to a maximum deposit of £50,000	£1,000 for each £5,000 of annual premium income. Maximum deposit £40,000. Minimum deposit £1,000.
New companies—Australia	£5,000 per annum until maximum of £50,000 is reached. For mutual companies, after the initial deposit of £5,000, £1,000 per annum until deposit reaches a maximum of £50,000	Initial deposit, £5,000. £1,000 for every £5,000 by which the annual premium income exceeds £25,000. Maximum deposit £40,000.
Overseas—		
British	£50,000	£50,000
Foreign	£60,000	£60,000

Money deposited is to be invested by the Treasurer in prescribed securities according to the selection of the depositor, and all interest accruing on deposits or securities is to be paid to depositors. Deposits are to remain as security against liability to policy-holders, and are to be available to satisfy judgments obtained in respect of policies.

If the value of money and approved securities deposited has depreciated below the value required by the Act, the Treasurer may require the depositor to lodge additional deposits to bring the total to the prescribed value.

After this Act became law, State laws governing insurance deposits ceased to operate. Deposits held by States on 1st February, 1932, could, however, remain with the States subject to the conditions embodied in the laws of the States. Whilst deposits so remained with the State, the depositors, to the extent of the value of their deposits, were exempt from liability to make deposits under the Commonwealth Act, and the conditions of State laws continued to apply to the deposits until the Commonwealth Treasurer required their return to depositors who immediately had to make deposits with the Commonwealth to the prescribed extent.

The following are not regarded as insurance businesses under the Act:—

Staff superannuation schemes ;

Schemes of religious organizations solely for insurance of their property ; and

Friendly Society, Union and Association schemes involving superannuation or insurance benefits to employees.

This Act does not apply to State insurance within the limits of the State concerned.

The following shows particulars of deposits under the Insurance Act 1932, at 30th June, 1937 and 1938.

Class of Insurance.		Deposited with—				Total.	
		Commonwealth.		States.			
		1937.	1938.	1937.	1938.	1937.	1938.
		£	£	£	£	£	£
Life ..	..	345,417	350,461	1,088,374	1,040,024	1,433,791	1,390,485
Other	..	441,301	606,755	2,201,380	2,068,540	2,642,681	2,705,295
Total ..		786,718	957,216	3,289,754	3,138,564	4,076,472	4,095,780

§ 2. Life Assurance.

1. *General*.—Since 1907 statistical returns have been collected from life assurance institutions, with results which are in the main satisfactory. The results for each of the earlier years may be found in the several Official Year Books and Finance Bulletins. The figures in the succeeding paragraphs refer to Australian business only, except where otherwise indicated.

2. *Institutions Transacting Business*.—(i) *General*. The number of institutions transacting life assurance business in Australia during 1937 was 27, including four overseas companies. Of the twenty-three Australian institutions, six are purely mutual, and sixteen are public companies. One office is a State government institution.

(ii) *Ordinary and Industrial Business*. Of the institutions enumerated in the preceding paragraph, fourteen transacted both ordinary and industrial business. Ordinary and industrial business have, where possible, been kept separate, and figures relating to companies whose head offices are outside Australia have been restricted to the Australian business.

3. *Australian Business*. (i) *Ordinary*. (a) 1936 and 1937. The following table shows particulars for each class of policy in existence during 1936 and 1937. The amount assured in 1937 represents an average of more than £55 per head of population.

ORDINARY LIFE ASSURANCE.—AUSTRALIAN BUSINESS 1936 AND 1937.

Class of Policy.				No. of Policies.	Sum Assured.	Average per Policy.
1936.						
				No.	£	£
Assurances—						
Whole of Life	..	..	..	394,753	195,494,880	495
Endowment	..	..	..	577,453	132,310,326	229
Other	..	..	..	19,609	16,152,734	824
Endowments	..	..	..	46,240	8,066,584	174
Total	..	..	..	1,038,055	352,024,524	339
Annuities	..	..	..	2,977	(a) 305,093	(a) 102
1937.						
Assurances—						
Whole of Life	..	..	..	415,714	206,211,824	496
Endowment	..	..	..	630,173	147,128,358	233
Other	..	..	..	21,989	18,019,996	820
Endowments	..	..	..	48,157	8,774,708	182
Total	..	..	..	1,116,033	380,134,886	341
Annuities	..	..	..	3,549	(a) 376,052	(a) 106

(a) Amount per annum.

(b) 1933–1937. Similar particulars for each of the last five years are shown below.

ORDINARY LIFE ASSURANCE 1933–1937.—AUSTRALIAN BUSINESS.

Year.	Assurance and Endowment Policies.				Annuities.	
	Policies in Force.	Amount.	Average per Policy.	Annual Premium Income.	No.	Amount per Annum.
	No.	£	£	£		£
1933	877,173	292,469,393	333	9,703,250	2,334	166,693
1934	908,620	304,778,667	335	10,240,507	2,512	207,387
1935	965,597	326,018,315	338	10,873,331	2,705	265,615
1936	1,038,055	352,024,524	339	11,911,755	2,977	305,093
1937	1,116,033	380,134,886	341	12,634,971	3,549	376,052

(ii) *Industrial.* (a) 1936 and 1937. Information in regard to industrial business in existence during 1936 and 1937 is given in the following table :—

INDUSTRIAL LIFE ASSURANCE.—AUSTRALIAN BUSINESS 1936 AND 1937.

Class of Policy.					No. of Policies.	Sum Assured.	Average per Policy.
1936.							
					No.	£	£
Assurances—							
Whole of Life					165,839	3,805,554	23
Endowment					1,789,592	82,311,811	46
Other					..	..	..
Endowments					123,029	4,631,270	38
Total					2,078,460	90,748,635	44
Annuities					2	(a) 58	(a) 29

1937.

					No.	£	£
Assurances—							
Whole of Life					166,090	3,838,485	23
Endowment					1,960,854	90,984,292	46
Other					..	..	..
Endowments					126,919	4,721,983	37
Total					2,253,863	99,544,760	44
Annuities					2	(a) 58	(a) 29

(a) Amount per annum.

(b) 1933–1937. Similar information for each of the last five years is shown below.

INDUSTRIAL LIFE ASSURANCE 1933–1937.—AUSTRALIAN BUSINESS.

Year.	Assurance and Endowment Policies.				Annuities.	
	Policies in Force.	Amount.	Average per Policy.	Annual Premium Income.	No.	Amount per Annum.
	No.	£	£	£		£
1933 ..	1,667,531	72,180,800	43	4,133,390	3	158
1934 ..	1,782,291	77,024,429	43	4,455,290	2	58
1935 ..	1,920,116	83,316,521	43	4,780,269	2	58
1936 ..	2,078,460	90,748,635	44	5,215,624	2	58
1937 ..	2,253,863	99,544,760	44	5,691,704	2	58

4. Receipts and Expenditure.—(i) *Ordinary Business.* The following table shows the aggregate Australian receipts for the last five years of all the institutions doing business in Australia. In the latter year premiums—new and renewal—amounted to over 63 per cent., and interest, dividends and rent to 34 per cent. of the Australian receipts.

ORDINARY LIFE ASSURANCE.—AUSTRALIAN RECEIPTS.

Heading.	Amount.				
	1933.	1934.	1935.	1936.	1937.
	£	£	£	£	£
Premiums—New ..	1,113,998	1,273,743	1,588,553	1,994,529	1,886,633
Renewal ..	8,589,252	8,966,764	9,284,778	9,917,226	10,748,338
Consideration for annuities ..	226,101	435,306	395,172	281,285	268,399
Interest, dividends and rents ..	5,532,932	5,686,744	5,896,289	6,368,726	6,778,610
Other receipts ..	326,892	280,502	23,297	143,327	76,238
Total Receipts ..	15,789,175	16,643,059	17,188,089	18,705,093	19,758,218

In 1937 claims accounted for 61 per cent. of the total expenditure; surrenders 13 per cent.; expenses of management 9 per cent.; commission 8 per cent.; and licence-fees and taxes 2 per cent.

ORDINARY LIFE ASSURANCE.—AUSTRALIAN EXPENDITURE.

Heading.	Amount.				
	1933.	1934.	1935.	1936.	1937.
	£	£	£	£	£
Claims ..	6,071,545	6,345,000	6,926,774	7,111,822	7,373,965
Surrenders ..	2,097,678	1,891,512	1,637,494	1,590,232	1,574,087
Annuities ..	119,282	151,377	171,517	187,659	213,386
Commission ..	640,395	704,020	856,890	1,021,474	1,015,820
Expenses of management ..	977,471	1,031,251	1,052,207	1,115,843	1,132,610
Licence fees and taxes	882,384	310,126	287,840	272,543	246,669
Shareholders' dividends	62,084	67,695	80,389	89,273	92,319
Cash bonuses paid to policyholders ..	585,688	282,860	283,013	246,920	242,924
All other expenditure	301,607	151,385	136,523	161,918	227,239
Total Expenditure	11,738,044	10,935,226	11,432,647	11,797,684	12,119,019

The excess of receipts over expenditure during the past five years was as follows:—1933, £4,051,131; 1934, £5,707,833; 1935, £5,755,442; 1936, £6,907,109; and 1937, £7,639,199. During the above years the proportions that expenditures bore to receipts were as follows:—1933, 74.3 per cent.; 1934, 65.7 per cent.; 1935, 66.5 per cent.; 1936, 63.1 per cent.; and 1937, 61.3 per cent.

(ii) *Industrial Business.* The aggregate Australian receipts for the years 1933 to 1937 of institutions transacting industrial business were as follows:—

INDUSTRIAL LIFE ASSURANCE.—AUSTRALIAN RECEIPTS.

Heading.	Amount.				
	1933.	1934.	1935.	1936.	1937.
	£	£	£	£	£
Premiums—New and Renewal	4,133,390	4,455,290	4,780,269	5,215,624	5,691,704
Interest, dividends and rents	1,082,143	1,175,245	1,287,113	1,383,615	1,506,503
Other receipts ..	26,568	26,326	44,067	37,905	42,342
Total Receipts ..	5,242,101	5,656,861	6,111,449	6,637,144	7,240,549

Expenditure during 1937 totalled £4,781,591. Claims amounted to over 52 per cent., commission to over 25 per cent., and expenses of management to over 13 per cent.

INDUSTRIAL LIFE ASSURANCE.—AUSTRALIAN EXPENDITURE.

Heading.	Amount.				
	1933.	1934.	1935.	1936.	1937.
	£	£	£	£	£
Claims	1,614,375	1,590,929	1,687,728	2,120,803	2,499,247
Surrenders	193,436	206,149	186,988	198,675	182,216
Annuities	1,071	136	40	36	36
Commission ..	866,430	962,185	1,008,811	1,108,600	1,212,596
Expenses of management	494,773	519,895	558,800	590,832	642,528
Licence fees and taxes	211,613	73,802	65,156	62,802	58,307
Shareholders' dividends	55,784	54,860	54,718	60,561	63,446
All other expenditure	123,926	138,027	96,243	85,144	123,161
Total Expenditure	3,561,408	3,546,073	3,658,484	4,227,453	4,781,591

The excess of receipts over expenditure for each of the last five years was:— 1933, £1,680,693; 1934, £2,110,788; 1935, £2,452,965; 1936, £2,409,691; and 1937, £2,458,958.

The proportions that expenditure bore to receipts during the above years were— 1933, 68 per cent.; 1934, 63 per cent.; 1935, 60 per cent.; 1936, 64 per cent. and 1937, 64 per cent.

5. *Liabilities and Assets, 1933–1937.*—(i) *General.* The liabilities of the Australian institutions consist mainly of their assurance funds, but in the case of public companies there is a further liability on account of the shareholders' capital. The assets consist chiefly of loans on mortgage and policies; government, municipal and similar securities; shares; freehold property, etc. Loans on personal security are granted by very few of the Australian institutions.

(ii) *Australian Liabilities and Assets.* For various reasons several institutions do not attempt the division of liabilities and assets between the industrial and ordinary branches, and, therefore, the figures in the following tables relate to ordinary and industrial branches combined.

ORDINARY AND INDUSTRIAL LIFE ASSURANCE.—AUSTRALIAN LIABILITIES.

Heading.	Amount.				
	1933.	1934.	1935.	1936.	1937.
	£	£	£	£	£
Shareholders' capital, paid up ..	1,399,390	1,409,545	1,439,251	1,497,020	1,500,738
Assurance and annuity funds ..	97,017,061	103,107,021	109,850,093	116,883,577	119,158,733
Other funds ..	14,377,576	15,401,241	16,294,586	17,090,234	17,011,958
Claims admitted but not paid ..	1,055,402	1,154,272	1,246,957	1,279,646	1,335,180
All other liabilities ..	2,595,643	2,954,675	3,283,206	3,570,071	4,323,550
Total Australian Liabilities ..	116,445,972	124,086,754	132,114,093	140,320,548	150,330,159

(a) Includes Industrial Department Assurance Funds (£15,852,577) of the Australian Mutual Provident Society which in previous years have been included with "Other Funds".

Separate details of Liabilities in Australia and outside Australia are not available for the following institutions:—Mutual Life and Citizens' Assurance Coy. Ltd., National Mutual Life Association, Western Australian Insurance Coy. Ltd., and Mutual Life Insurance Co. of New York. The aggregate Australian assets of these institutions included hereunder are as follows:—1933, £38,310,932; 1934, £42,385,954; 1935, £44,879,839; 1936, £48,012,199; and 1937, £50,778,336. Assets and liabilities of the Liverpool and London and Globe Insurance Company Ltd. are also excluded as separate details for Life and General Departments are not available.

Assets for the years specified are set out in detail in the table hereunder:—

ORDINARY AND INDUSTRIAL LIFE ASSURANCE.—AUSTRALIAN ASSETS.(a)

Heading.	Amount.				
	1933.	1934.	1935.	1936.	1937.
	£	£	£	£	£
Government and municipal securities ..	82,294,398	88,389,264	94,854,302	98,005,982	109,521,627
Mortgages ..	36,600,242	38,520,928	40,932,324	45,724,422	50,401,868
Loans on companies' policies ..	20,265,261	20,579,816	20,837,744	21,172,947	21,448,626
Landed and house property ..	6,656,560	7,260,910	8,381,943	9,945,381	10,969,919
Life interests and reversions ..	302,602	277,694	288,050	251,632	223,446
Other investments ..	4,140,065	4,302,014	5,338,344	6,868,756	7,000,516
Outstanding premiums	1,020,492	941,164	964,000	971,170	957,562
Outstanding interest, dividends and rents	1,648,410	1,685,091	1,734,581	1,770,555	1,686,488
Cash ..	3,230,495	3,753,977	3,018,955	2,086,028	2,419,171
Establishment and organization accounts	1,091,659	1,125,700	1,125,668	1,130,650	1,128,058
All other assets ..	1,121,755	1,432,564	1,615,933	1,599,355	1,758,473
Total Australian Assets ..	158,371,939	168,268,222	179,092,834	190,441,884	208,416,354

(a) Excludes Australian assets of Liverpool and London and Globe Coy. Assets of other companies referred to above are included herein.

(iii) *Total Assets.* It has been thought desirable to restrict wherever possible the figures relating to life assurance, to business in Australia. Several of the companies whose head offices are in Australia transact, however, a large amount of business elsewhere, viz., in New Zealand, in South Africa, and in the United Kingdom, while in the case of the foreign companies, the Australian business is insignificant compared with that done elsewhere. Particulars as to this foreign business of both Australian and foreign companies will be found in Finance Bulletin No. 29.

The total Australasian assets of all life companies operating in Australia amounted to £263,080,746 in 1937, of which government and municipal securities (£141,202,421), and mortgages (£56,287,523), represented more than 75 per cent. The figures in this issue show substantial reductions when compared with earlier ones due to the restriction of the returns of the Prudential Insurance Co. Ltd., London, and the Mutual Life Insurance Co. of New York to their Australasian business. Amended particulars comparable with the figures in this paragraph are given in Finance Bulletin No. 29, published by this Bureau.

6. *New Policies issued in Australia, 1937.*—(i) *Ordinary Business.* During 1937 153,492 new policies were issued for £50,719,571. The average amount per policy was £330, which compares with an average of £329 per policy for all policies which were in existence at the end of 1936.

(ii) *Industrial Business.* New policies to the number of 443,778 were issued during the year, for a total of £20,210,733. The average per policy which was over £46 was about the same as the average for all industrial policies current at the end of 1936.

7. *Policies Discontinued in Australia.*—(1) *Ordinary Business.* The volume of business which from various causes becomes void in each year is always large. The number and amount of policies, including annuities, discontinued in the last three years and the reasons for discontinuance are given in the following table:—

ORDINARY LIFE ASSURANCE.—POLICIES DISCONTINUED IN AUSTRALIA. (a)

Mode.	1935.		1936.		1937.	
	No. of Policies.	Amount.	No. of Policies.	Amount.	No. of Policies.	Amount.
		£		£		£
Death or maturity ..	20,880	4,861,776	21,493	5,167,814	22,138	5,278,808
Surrender ..	16,281	4,040,155	15,080	4,800,533	15,101	4,058,027
Forfeiture ..	30,812	10,418,307	33,708	11,005,082	37,027	12,040,162
Transfer ..	(b)—37	(b)—27,701	(b)—100	(b)—37,052	(b)—	(b)—47,740
Total ..	67,936	20,201,567	70,091	21,005,377	74,949	22,538,251

(a) Includes Annuities.

(b) Transfers to Australian registers exceed transfers from Australia.

(ii) *Industrial Business.* The number of policies discontinued in this Branch each year is also very large. Of the total amount of discontinuances during 1937 only about 24 per cent. was due to death or maturity, while roughly 70 per cent. was due to forfeiture.

INDUSTRIAL LIFE ASSURANCE.—POLICIES DISCONTINUED IN AUSTRALIA.(a)

Mode.	1935.		1936.		1937.	
	No. of Policies.	Amount.	No. of Policies.	Amount.	No. of Policies.	Amount.
		£		£		£
Death or maturity ..	47,813	1,554,791	57,257	1,945,131	63,290	2,243,021
Surrender ..	13,175	620,065	12,852	601,487	13,124	604,244
Forfeiture ..	173,507	7,713,112	174,596	7,983,903	181,817	8,500,354
Transfer ..	(b)—70	(b)—4,581	(b)—3	(b)—721	134	6,989
Total ..	234,425	9,883,387	244,702	10,529,800	258,374	11,414,608

(a) Includes Annuities. (b) Transfers to Australian registers exceed transfers from Australia.

8. *Conspectus of Australian Life Assurance Legislation.*—A conspectus of Australian Life Assurance Legislation as then existing appeared in Official Year Book No. 18, pp 1041 to 1059.

§ 3. Fire, Marine and General Insurance.

1. *Australasian Companies*.*—(i) *General.* Returns in some detail are available showing the revenue and expenditure, assets and liabilities, and investments of 40 insurance companies having their head offices either in Australia, New Zealand, or Fiji. The business transacted by these companies represents from 55 to 60 per cent. of the aggregate Australian business, some particulars of which are given in par. 2 following.

(ii) *Revenue and Expenditure.* The most important items of revenue and expenditure are given below. The trade surplus in 1936-37 was £947,871, or 12.12 per cent. of premium income.

FIRE, MARINE AND GENERAL INSURANCE COMPANIES.—SUMMARY OF REVENUE AND EXPENDITURE.

Heading.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
No. of Companies ..	40	42	40	40	40
	£	£	£	£	£
Premiums, less reinsurance ..	5,801,940	6,041,391	6,387,181	6,079,718	7,810,726
Losses ..	3,262,215	3,030,647	3,371,346	3,797,082	4,358,803
Expenses, commission and taxes ..	2,278,135	2,312,421	2,320,111	2,390,808	2,512,092
Trade surplus ..	350,690	602,323	680,724	812,138	947,871
Interest, rent, etc. ..	684,674	680,965	681,305	691,713	755,302
Total surplus ..	1,035,364	1,373,201	1,368,110	1,503,851	1,703,173
Dividends and Bonuses paid ..	571,134	632,210	611,359	675,541	680,200
Ratio to premium income of—	%	%	%	%	%
(a) Losses ..	55.38	50.26	52.78	54.05	55.74
(b) Expenses, etc. ..	38.67	38.28	36.47	34.30	32.14
(c) Trade surplus ..	5.95	11.46	10.75	11.65	12.12

(iii) *Liabilities and Assets.* The liabilities and assets for the same period are set out in the following table. Comparison of the results for 1936-37 (40 companies), with those for 1932-33 (40 companies) shows that paid-up capital increased by 5.8 per cent., while reserves increased by 21.2 per cent. Government securities represent an increasing proportion of assets.

* The statistical information in this paragraph has been extracted from the "Australasian Insurance and Banking Record".

FIRE, MARINE AND GENERAL INSURANCE COMPANIES.

Heading.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
PAID-UP CAPITAL, RESERVES AND LIABILITIES.					
	£	£	£	£	£
Paid-up capital	6,308,179	6,311,586	6,554,157	6,566,758	6,674,188
Reserves and reinsurance funds (a)	10,416,126	10,988,132	11,233,914	11,773,597	12,623,437
Undivided profits	735,443	801,204	837,255	988,391	954,871
Losses unsettled	929,467	852,808	890,106	1,057,319	1,309,361
Sundry creditors, etc. ..	1,691,647	1,600,364	1,511,909	1,032,589	1,833,367
Dividends, etc., to pay ..	369,438	408,619	358,139	423,613	428,751
Life assurance funds (b) ..	3,022,037	3,286,254	3,342,077	3,564,910	3,860,147
Total Liabilities	23,473,237	24,248,967	24,728,457	26,037,156	27,684,122

INVESTMENTS AND OTHER ASSETS.

	£	£	£	£	£
Loans on mortgage	797,417	747,112	689,508	906,802	923,781
Government securities, etc. ..	14,878,208	15,491,215	15,840,586	10,805,834	18,186,004
Landed and other property ..	3,230,307	3,182,121	3,104,530	3,000,330	3,158,200
Fixed deposits, etc.	1,700,384	2,008,208	1,600,170	1,073,553	2,001,642
Loans on life policies (b)	254,077	273,568	272,008	307,938	347,400
Investments	203,182	214,575	252,878	234,226	252,234
Cash and bills receivable	972,852	903,765	1,056,452	900,288	900,553
Sundry debtors and other assets	1,421,810	1,458,403	1,482,719	1,716,179	1,817,549
Total Assets, ...	23,473,237	24,248,967	24,728,457	26,037,156	27,684,122

(a) Including amount required as reserves against unexpired risks.

(b) Some of the companies transact Life Business.

2. Aggregate Australian Business.—(i) *States.* While the foregoing statements relate to those companies only whose head offices are located in Australia, New Zealand or Fiji, the following particulars which are somewhat restricted in the range of information are in respect of all companies operating in Australia.

The appended table shows for each State the aggregate premium income, less reinsurances and returns, and claims paid, less reinsurances, together with the proportions of losses on premiums for all classes of insurance other than life for the years 1935-36 and 1936-37.

FIRE, MARINE AND GENERAL INSURANCE.—PREMIUMS AND LOSSES.

State.	Premiums, less reinsurances and returns.		Losses, less reinsurances.		Proportion of Losses on Premiums.	
	1935-36.	1936-37.	1935-36.	1936-37.	1935-36.	1936-37.
	£	£	£	£	%	%
New South Wales ..	5,235,811	5,944,898	3,144,718	3,148,762	60.06	52.97
Victoria ..	3,551,378	4,004,098	1,516,927	1,842,139	42.71	46.01
Queensland ..	1,631,434	1,841,506	841,034	965,045	51.55	52.41
South Australia ..	914,566	1,048,952	326,542	348,339	35.70	33.21
Western Australia ..	1,087,779	1,205,146	507,335	682,812	46.64	56.66
Tasmania ..	338,209	377,454	124,679	143,020	36.86	37.89
All States ..	12,759,177	14,422,054	6,461,235	7,130,117	50.64	49.44

(ii) *Classes of Insurance.* The statement hereunder shows premiums and losses in respect of the principal classes of risks, with the proportions of losses on premiums for the years 1935-36 and 1936-37.

FIRE, MARINE AND GENERAL INSURANCE.—PREMIUMS AND LOSSES,
PRINCIPAL CLASSES OF RISK,

Class of Risk.	Premiums, less reinsurances and returns.		Losses, less reinsurances.		Proportion of Losses on Premiums.	
	1935-36.	1936-37.	1935-36.	1936-37.	1935-36.	1936-37.
	£	£	£	£	%	%
Fire ..	5,231,279	5,387,784	2,004,883	1,864,513	38.32	34.61
Workers' Compensation ..	2,789,468	3,535,179	2,203,788	2,562,500	79.00	72.49
Motor Vehicle ..	2,332,486	2,793,559	1,396,828	1,732,419	59.89	62.01
Marine ..	830,899	885,152	273,261	272,413	32.89	30.78
Personal Accident ..	409,244	476,081	167,540	209,168	40.94	43.94
All other ..	1,165,801	1,344,299	414,935	489,104	35.59	36.38
Total ..	12,759,177	14,422,054	6,461,235	7,130,117	50.64	49.44

The volume of business measured by the amounts of premium income shows that fire insurances represented about 41 per cent. of the total during 1935-36 and 37 per cent. during 1936-37, while next in importance were workers' compensation 22 per cent. during 1935-36 and 24 per cent. during 1936-37, and motor vehicles 18 per cent. in 1935-36 and 19 per cent. in 1936-37.

For several years prior to 1930-31 slightly more than 50 per cent. of the premium income was absorbed in satisfaction of claims. The proportion was reduced to about 48 per cent. in 1931-32 while during the next three years less than 45 per cent. was required on the average to meet losses. In 1935-36 and in 1936-37 this proportion again rose to about 50 per cent.

E. FRIENDLY SOCIETIES.

1. *General.*—Friendly societies are an important factor in the social life of the community, as probably more than one-third of the total population of Australia comes either directly or indirectly under their influence. Their total membership exceeds 560,000, but as certain benefits, such as medical attendance and free medicines, and in many cases funeral expenses, are granted to members' families as well as to members themselves, this figure must, even when due allowance is made for young and unmarried members, be more than doubled to arrive at an estimate of the number of persons who receive some direct benefit from these societies. Legislation has conferred certain privileges on friendly societies, but, on the other hand, it insists on their registration,

and it is the duty of the Registrars in the various States, prior to registering a new society, to see that its proposed rules are conformable to the law, and that the scale of contribution is sufficient to provide the promised benefits. Societies are obliged to forward annual returns as to their membership and their finances to the Registrar, and reports are published in most of the States dealing with the returns received. Up to and including the year 1930, returns for South Australia were for calendar years. The basis was then changed and the next statistical returns were for the eighteen months ended 30th June, 1932. The figures in the following tables are for the year 1935-36 in respect of all States except Tasmania where they relate to the calendar year 1936.

2. **Number of Societies, Lodges and Members.**—The number of different societies and lodges, the total number of benefit members at the end of the year, and their average number during the year are shown in the following table:—

FRIENDLY SOCIETIES.—SOCIETIES, LODGES AND MEMBERS, 1936.

State.		Number of Registered Friendly Societies.	Number of Lodges.	Benefit Members at End of Year.	Average No. of Benefit Members during the Year.
New South Wales (c)	..	30	2,428	206,857	205,742
Victoria ..	..	59	1,449	172,290	169,235
Queensland ..	..	62	603	69,333	68,493
South Australia (a) ..	..	18	(d) 874	71,658	71,350
Western Australia ..	..	14	340	24,226	23,697
Tasmania ..	..	19	193	25,068	(b) 24,826
Total ..	..	..	5,887	569,432	563,343

(a) Excludes Juvenile Branches with 18,226 members. (b) Estimated. (c) Excludes twenty-one miscellaneous societies consisting of Medical Institutes, Dispensaries, and Accident and Burial Societies. (d) Lodges containing male and female branches counted as two branches.

The total number of registered Friendly Societies is not given for Australia, as many of the societies operate in all the States.

3. **Sickness and Death Returns.**—Sick pay is generally granted for a number of months at full rates, then for a period at half-rates, and in some societies is finally reduced to quarter rates. The following table shows the total number of members who received sick pay during the year, the number of weeks for which they received pay in the aggregate, and the average per member sick, and further the number of benefit members who died during the year, together with the proportion of deaths per thousand average members:—

FRIENDLY SOCIETIES.—SICKNESS AND DEATH RETURNS, 1936.

State.	Number of Members who received Sick Pay.	Total Number of Weeks Sick Pay Granted.	Average Number of Weeks per Member Sick.	Benefit Members.	
				Deaths.	Proportion of deaths per 1,000 (Average).
New South Wales ..	46,347	482,543	10.41	2,621	12.74
Victoria ..	41,777	468,648	11.22	1,777	10.50
Queensland ..	13,844	136,586	9.87	753	10.99
South Australia (a) ..	17,730	209,473	11.81	910	12.75
Western Australia ..	5,562	51,490	9.26	198	8.36
Tasmania ..	5,301	59,099	11.15	306	12.33
Total ..	130,561	1,407,839	10.78	6,565	11.65

(a) Excludes Juvenile Branches.

4. *Revenue and Expenditure.*—(i) *Revenue.* The financial returns are not prepared in the same way in each State, but an attempt has been made in the subjoined table to group the revenue under the main headings:—

FRIENDLY SOCIETIES.—REVENUE, 1936.

State.	Entrance Fees, Members' Contributions and Levies.	Interest, Dividends and Rents.	All other Revenue.	Total Revenue.
	£	£	£	£
New South Wales ..	731,637	187,867	42,019	961,523
Victoria ..	623,035	256,839	44,210	924,084
Queensland ..	242,650	80,018	(a)	322,668
South Australia ..	233,279	121,336	19,427	374,042
Western Australia ..	91,403	27,164	15,705	134,272
Tasmania ..	88,756	20,892	20,260	129,908
Total ..	2,010,760	694,116	141,621	2,846,497

(a) Included in interest, dividends and rents.

(ii) *Expenditure.* The returns relating to expenditure are in greater detail than those for revenue. The figures show that the excess of revenue for the year was £416,853 for Australia, representing about 14s. 10d. per average benefit member.

FRIENDLY SOCIETIES.—EXPENDITURE, 1936.

State.	Sick Pay.	Medical Attendance and Medicine.	Sums Paid at Death of Members and Members' Wives.	Adminis- tration.	All other Expendi- ture.	Total Expendi- ture.
	£	£	£	£	£	£
New South Wales ..	260,745	285,891	91,672	153,636	35,933	827,877
Victoria ..	266,004	256,602	44,920	125,733	86,649	779,908
Queensland ..	90,481	99,491	39,473	56,663	(a)	286,108
South Australia ..	106,800	92,772	40,370	46,240	30,390	316,572
Western Australia ..	30,547	33,536	10,812	20,146	6,603	101,644
Tasmania ..	33,264	29,793	21,605	18,114	14,759	117,535
Total ..	787,841	798,085	248,852	420,532	174,334	2,429,644

(a) Included in administration.

It appears from the above figures that sick pay averaged about 28s. per average benefit member, but, as the returns include pay at half and quarter rates, and as the proportion of these to full rates is not stated, the average given is somewhat indefinite. Medical attendance and medicine cost about 28s. 4d. per average benefit member.

5. *Funds.*—The two foregoing tables show that the surplus of revenue over expenditure in all States amounted to £416,853 for the year. Accumulations of profits arising in the sickness and funeral funds of these societies are invested pending claims by members, and at the end of the year 1936 the total funds of friendly societies amounted to £15,953,991 (£28 os. 4d. per benefit member), of which approximately 16 millions were invested, principally on mortgage, loans on members' homes, real estate, and in Government and Municipal securities.

F. PROBATES.

1. **Probates and Letters of Administration.**—The value of the estates left by deceased persons gives some idea of the distribution of property among the general population. There were in 1936 approximately 62,600 deaths of adult persons, while the number of probates and letters of administration granted during the same period was 23,178. It would therefore appear that about 37 per cent. of the adults who died during the year were possessed of sufficient property to necessitate the taking out of probate. The details for each State are shown in the table hereunder:—

PROBATES AND LETTERS OF ADMINISTRATION, 1936.

Particulars.		New South Wales, 1935-36.	Victoria, 1936.	Queensland, 1935-36.	South Australia, 1936.	Western Australia, 1936.(b)	Tasmania, 1936.(c)	Total.
Probates—								
Estates	No.	9,644	6,006	1,108	1,860	1,168	627	20,413
Gross Value	£	22,263,665	23,370,754	4,623,740	4,839,905	2,739,327	1,774,287	59,611,678
Net Value	£	(d)	20,467,807	(d)	3,997,074	2,236,969	1,508,649	28,210,499
Letters of Administration—								
Estates	No.	(a)	1,670	199	365	375	156	(e) 2,765
Gross Value	£	(a)	(a)	332,617	298,042	298,846	250,511	£ 1,180,016
Net Value	£	(d)	(a)	(d)	206,220	229,977	198,145	£ 634,342
Total—								
Estates	No.	9,644	7,676	1,307	2,225	1,543	783	23,178
Gross Value	£	22,263,665	23,370,754	4,956,357	5,137,947	3,038,173	2,024,798	60,701,604
Net Value	£	(d)	20,467,807	(d)	4,203,294	2,466,946	1,706,794	28,844,841

(a) Included with Probates. (b) Applications lodged. (c) Applications dealt with.
(d) Not available. (e) Incomplete.

2. **Intestate Estates.**—The number of intestate estates placed under the control of the Curator during the year, and the amount of unclaimed money paid into Consolidated Revenue in each State during the year 1936, are given hereunder:—

INTESTATE ESTATES, 1936.

Particulars.	N.S.W.	Vic. (c)	Q'land. (c)	S. Aust.	W. Aust.	Tas. (g)	Total. (d)
Intestate estates placed under control of Curator during 1936—							
Number ..	(b)	(h) 192	666	159	380	(g) 106	1,503
Gross Value ..	(b)	(b)	208,590	89,482	(f) 28,644	(g) 35,715	362,431
Net Value ..	(b)	(h) 38,817	163,151	63,688	(b)	(g) 26,574	292,230
Unclaimed money paid into Consolidated Revenue by Curator during 1936 £	(b)	(a) 10,644	£ 19,309	977	6,651	(b)	37,581

(a) Year ended 30th June, 1937. (b) Not available. (c) Year ended 30th June, 1936.
(d) Incomplete. (e) Paid to Unclaimed Moneys Fund. (f) Amount collected during year.
(g) Intestate estates wound up by Public Trustee, 1936-37. (h) Estates dealt with by Curator.

CHAPTER XXVII. PUBLIC FINANCE.

A.—GENERAL.

In early issues of the Official Year Book the plan was adopted of including in a single Chapter under the general heading of "Finance" the more important particulars available in connexion therewith. A departure was made in Official Year Book No. 25 by dividing the subject into separate Chapters with the two broad headings of "Public Finance" and "Private Finance". Notwithstanding that the financial transactions of Local Government Bodies and certain statutory Governmental Bodies come within the category of Public Finance, it is convenient to deal with these in a separate Chapter.

The subject of "Public Finance" has been dealt with in this Chapter under the two major divisions of Commonwealth Finance—including currency and coinage—and State Finance. The close financial relations between the Commonwealth and States particularly since the Financial Agreement has been in operation, however, demand a combination of these two divisions under the heading of Commonwealth and State Finance.

Certain banking activities are conducted by both Commonwealth and State Governments, but as the services provided are essentially connected with the banking system of the Commonwealth they have been included in the section of the Private Finance Chapter relating to Banking. An exception has been made in the case of the Commonwealth Bank Note Issue Department, which is dealt with in sub-section "Currency and Coinage" of this Chapter.

B.—COMMONWEALTH FINANCE.

§ 1. General.

1. *Financial Provisions of the Constitution.*—The main provisions of the Constitution relating to the initiation and development of the financial system of the Commonwealth are contained in Chapter IV., "Finance and Trade," being sections S1 to 105 of the Constitution Act. Two other sections which have a most important bearing on questions of Commonwealth finance are sections 69 and 51.

Section 69 provides for the transfer to the Commonwealth from the States of certain specified departments, while section 51, in outlining the powers of the Federal Parliament, implies the transfer or creation of various other departments. Section 87 deals with the financial relations between the Commonwealth and the States. These matters have been treated in some detail in previous issues of the Official Year Book and on page 880 of this issue a *résumé* is given of the constitutional obligations upon the Commonwealth regarding payments to the States.

The Commonwealth Treasury issues annually a document entitled "The Treasurer's Statement of Receipts and Expenditure during the year ended the 30th June," with which is incorporated the report of the Commonwealth Auditor-General for the year. This series of annual statements is the principal authority for the majority of the tables given herein.

2. *Accounts of Commonwealth Government.*—(i) *General.* The Commonwealth Government, like the State Governments, bases its accounts mainly upon three funds, the Consolidated Revenue Fund, the Trust Fund and the Loan Fund. The last mentioned fund came into existence in the financial year 1911-12, but on the outbreak of war it became so important that it was treated in two parts—a General Loan Fund mainly for purposes of Public Works, and a War Loan Fund for purely war purposes. From the year 1923-24 inclusive the loan expenditure on War Service Homes was debited against works loan expenditure. Previously such expenditure had been a charge on War Loans. Since the year mentioned the transactions of the War Loan Fund consists mainly of credits arising from repayments of expenditure during previous years.

(ii) *Receipts, Expenditure, etc.* The following statement shows for the period 1921-22 to 1937-38 the Receipts, Expenditure, Excess Receipts or Deficiency for the year together with the accumulated result and the payments made from the excess receipts. The receipts and expenditure on account of the Balance of Interest on States' Debts payable by the States to the Commonwealth under the Financial Agreement have been excluded.

COMMONWEALTH CONSOLIDATED REVENUE—RECEIPTS, EXPENDITURE, ETC.

Year.	Receipts.	Expenditure.	Ordinary Transactions.		Accumulated Result.		Payments from Excess Receipts.
			Excess Receipts.	Deficiency.	Excess Receipts.	Deficiency.	
	£	£	£	£	£	£	£
1921-22 ..	63,985,796	64,195,699	..	209,903	6,408,424	..	..
1922-23 ..	63,834,385	62,814,235	1,020,150	..	7,428,574	..	..
1923-24 ..	65,078,688	62,500,354	2,578,334	..	2,591,153	..	..
1924-25 ..	67,697,124	67,178,748	518,376	..	3,109,529	..	67,415,755
1925-26 ..	70,203,572	70,577,204	..	373,632	285,897	..	62,450,000
1926-27 ..	75,544,382	72,908,785	2,635,597	..	2,821,494	..	..
1927-28 ..	73,808,227	76,438,464	..	2,630,237	..	f 2,628,743	e 100,000
1928-29 ..	74,894,799	77,253,771	..	2,358,975	..	f 4,907,710	d2,800,000
1929-30 ..	77,143,389	78,614,392	..	1,471,003	..	f 6,458,721	..
1930-31 ..	69,566,920	80,324,539	..	10,757,619	..	f17,216,340	..
1931-32 ..	71,532,298	70,218,207	1,314,091	..	1,314,091	..	..
1932-33 ..	73,512,809	69,966,201	3,546,608	..	4,860,699	..	..
1933-34 ..	73,941,953	72,640,383	1,301,570	..	6,162,269	..	..
1934-35 ..	77,369,105	76,657,900	711,205	..	713,474	..	..
1935-36 ..	82,203,341	78,635,621	3,567,720	..	15,002,558	..	e6,160,000
1936-37 ..	82,807,977	81,531,111	1,276,866	..	15,955,148	..	f14,474
1937-38 ..	80,458,154	83,063,421	3,494,733	..	3,494,733	15,958,588	e3,567,720

(a) £4,915,755 was used for debt redemption, and £2,500,000 transferred to Trust Funds. (b) Naval construction, £1,500,000; Main Roads, £750,000; Science and Industries investigations, £100,000; and prospecting for oil and precious metals, £100,000. (c) Prospecting for oil and precious metals. (d) Naval construction and Defence reserve, £2,250,000; Science and Industry investigation, £500,000; Civil Aviation, £200,000; Purchase of radium, £100,000; and Geophysical Survey of Australia, £20,000. (e) See table following. (f) Met by temporary advance from loan fund.

(iii) *Excess Receipts.* Particulars of the excess receipts, accumulated balances and allocation of excess receipts for each of the past five years are as follows:—

COMMONWEALTH CONSOLIDATED REVENUE—EXCESS RECEIPTS.

Particulars.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Accumulated balance	4,860,699	6,162,269	713,474	3,567,720	1,276,558
Excess receipts	1,301,570	711,205	3,567,720	1,276,558	3,494,733
Total for year	6,162,269	6,873,474	4,281,194	4,844,278	4,771,291
Expenditure from excess receipts—					
Grants to States	..	..	..	..	..
Defence equipment	..	2,000,000	500,000	500,000	..
Post Office Works Provision	..	4,100,000	..	2,000,000	..
Reduction of deficit	..	..	213,474	1,067,720	1,000,000
Total	..	6,160,000	713,474	3,567,720	1,276,558
Accumulated balance	6,162,269	713,474	3,567,720	1,276,558	3,494,733

It is proposed to allocate the accumulated surplus at 30th June, 1938, for Defence Equipment.

§ 2. Consolidated Revenue Fund.

Division I.—Nature of Fund.

The provisions made for the formation of a Commonwealth Consolidated Revenue Fund, and the means to be adopted for operating on the fund, are contained in sections 81, 82 and 83 of the Constitution.

Division II.—Revenue.

1. General.—The following table furnishes details of the revenue from each source and the amount per head of population under each of the three main headings during the years 1933-34 to 1937-38 :—

COMMONWEALTH CONSOLIDATED REVENUE—SOURCES.

Source.	1933-34.	1934-35.	1935-36.	1936-37.(n)	1937-38.(u)
	£	£	£	£	£
Taxation	56,408,728	58,754,524	63,617,306	62,773,452	69,048,485
Percentage of Total .. %	76.3	75.9	77.4	75.8	77.2
Per head of population (d) ..	£8 9 6	£8 15 4	£9 8 6	£9 4 6	£10 1 2
Business Undertakings	13,460,911	14,279,362	15,222,652	16,222,910	17,167,943
Percentage of Total .. %	18.2	18.5	19.6	19.6	19.2
Per head of population (d) ..	£2 0 6	£2 2 7	£2 5 1	£2 7 8	£2 10 0
Territories (b)	235,091	250,087	313,776	300,253	339,975
Percentage of Total .. %	0.3	0.3	0.4	0.4	0.4
Per head of population (d) ..	£0 0 8	£0 0 9	£0 0 11	£0 0 11	£0 1 0
Other Revenue—					
Interest, etc. (c)					
Loans to States for Soldier Settlement	1,083,865	1,116,827	(e)	(e)	(e)
Other	1,327,195	1,430,577	1,338,510	1,074,423	1,044,076
Coinage	139,263	133,703	167,719	295,167	362,705
Defence	41,213	43,769	42,105	46,149	34,800
Health	17,068	18,905	18,060	67,134	17,621
Patents, Trade Marks, etc. ..	51,444	55,209	58,783	62,163	61,435
Commerce and Marine—					
Wool Levy				72,805	77,523
Marine	193,532	212,526	218,915	216,406	182,463
Other	28,472	24,372	11,206	Dr. 1,104	
Pension Contributions	31,733	23,887	31,261	28,769	23,697
Net Profit on Australian Note Issue ..	728,998	797,344	855,720	898,585	839,883
Bankruptcy	32,475	31,324	29,517	30,569	30,441
Balance of Trust Accounts		10,075	72,837	477,048	10,940
Other	161,965	186,620	204,950	243,248	219,167
Total	3,837,223	4,085,132	3,049,613	3,511,362	2,910,751
Percentage of Total .. %	5.2	5.3	3.7	4.2	3.2
Per head of population (d) ..	£0 11 7	£0 12 2	£0 9 0	£0 10 4	£0 8 6
Grand Total (c)	73,941,953	77,369,105	82,203,341	82,807,977	89,458,154
Per head of population (d) ..	£11 2 3	£11 10 10	£12 3 6	£12 3 5	£13 0 8
Balance of Interest on States' Debts—recoverable from States	25,480,072	24,390,832	24,786,646	25,081,605	25,580,374

(a) Prior to 1936-37 interest on the Development and Migration Loan and the Brisbane-South Grafton Railway Loan was credited to "Miscellaneous Receipts" in Consolidated Revenue and debited against the Prime Minister's Department and the Department of the Interior respectively. These items are now credited to "Balance of Interest on States' Debts—payable by States" and debited against "Balance of Interest on States' Debts—recoverable from States" in Commonwealth Accounts.
 (b) Excluding Railways. (c) Excludes Interest on States' Debts payable by States. (d) Based on mean population of each financial year. (e) Not now paid to Consolidated Revenue.

2. Taxation.—(i) Total Collections. (a) Amount. Collections under each heading for the years 1933-34 to 1937-38 are given below :—

TAXATION—TOTAL COLLECTIONS.

Heading.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Customs	22,326,823	25,289,719	28,068,870	28,782,784	32,972,666
Excise	11,928,019	12,579,767	13,368,847	14,210,248	15,410,339
Sales Tax	8,605,689	8,554,076	9,432,483	8,008,427	8,023,886
Flour Tax	1,253,957	708,354	1,150,724	Dr. 12,193	3,025
Land Tax	1,325,303	1,281,424	1,326,991	1,435,465	1,368,444
Income Tax	9,314,768	8,761,619	8,775,502	8,556,014	9,398,503
Estate Duties	1,511,296	1,507,827	1,472,860	1,792,000	1,872,654
Entertainments Tax	51,216	Dr. 599	13	107	1
War Time Profits Tax	1,567	Dr. 17,663	20,956		Dr. 1,033
Total Taxation	56,408,728	58,754,524	63,617,306	62,773,452	69,048,485
Percentage on Total Revenue ..	76.3	75.9	77.4	75.8	77.2

(b) *Percentages of Total Collections.* The following table shows the percentages of the collections under each class of taxation on the total collections for the last five years :—

TAXATION—PERCENTAGES ON TOTAL COLLECTIONS.

Heading.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	%	%	%	%	%
Customs	39.6	43.0	44.1	45.9	47.8
Excise	21.1	21.4	21.0	22.6	22.3
Sales Tax	15.4	14.6	14.8	12.7	11.6
Flour Tax	2.2	1.4	1.8	..	..
Land Tax	2.4	2.2	2.1	2.3	2.0
Income Tax	16.5	14.9	13.8	13.6	13.6
Estate Duties	2.7	2.5	2.4	2.9	2.7
Entertainments Tax	0.1	..	..	..	..
War Time Profits Tax	..	..	..	..	..
Total	100.0	100.0	100.0	100.0	100.0

(ii) *Customs Revenue.* (a) *Classified.* Particulars for the five years 1933-34 to 1937-38 are furnished in the following table :—

COMMONWEALTH CUSTOMS REVENUE—CLASSIFICATION.

Classes.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Stimulants	1,051,843	1,089,416	1,140,687	1,157,707	1,174,494
Narcotics	2,661,013	2,827,749	2,940,367	3,041,000	3,243,400
Sugar	605	827	1,018	4,204	5,380
Agricultural products	1,123,570	1,222,775	1,218,026	1,280,331	1,268,440
Apparel and textiles	2,100,207	2,311,474	2,035,003	2,752,801	3,160,485
Metals and machinery	1,370,007	1,004,480	2,235,017	2,105,303	2,702,044
Oils, paints, etc.	6,110,300	6,760,588	7,081,244	8,401,304	9,031,300
Earthenware, etc.	395,452	390,029	441,431	400,840	534,012
Drugs and chemicals	202,752	205,114	224,718	205,008	312,532
Wood, wicker and cane	513,400	401,283	520,402	720,350	770,677
Jewellery, etc.	304,200	400,018	415,000	451,511	522,305
Leather, etc.	307,657	300,600	301,400	412,714	407,050
Paper and Stationery	410,031	425,000	450,200	447,048	488,716
Vehicles	957,000	1,335,657	1,703,188	2,180,245	2,006,560
Musical instruments	9,437	10,210	22,180	30,041	27,056
Miscellaneous articles	604,002	850,380	1,020,470	920,854	1,173,035
Primage	4,080,450	4,250,210	4,078,358	3,833,105	4,450,001
Other receipts	100,700	181,347	200,314	209,350	232,730
Total Customs	22,326,823	25,289,719	28,068,870	28,782,784	32,972,666

(b) *States.* The following table shows the Customs Duties collected in each State during the last five years :—

COMMONWEALTH CUSTOMS DUTIES—COLLECTIONS, EACH STATE.

State.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
New South Wales (a)	9,917,405	11,141,391	12,141,828	12,807,629	14,831,986
Victoria	7,502,201	8,430,426	9,453,887	9,338,212	10,626,241
Queensland	1,982,716	2,504,179	2,682,260	2,652,736	2,955,788
South Australia (b) ..	1,423,627	1,576,979	1,861,204	1,906,269	2,332,090
Western Australia ..	1,251,919	1,350,046	1,585,967	1,704,018	1,814,435
Tasmania	248,955	286,698	343,724	373,920	412,126
Total	22,326,823	25,289,719	28,068,870	28,782,784	32,972,666

(a) Includes Australian Capital Territory.

(b) Includes Northern Territory.

(iii) *Excise Revenue.* (a) *Classified.* Particulars concerning the amount of Excise collected under each head during each of the years ended 30th June, 1934 to 1938, are given hereunder :—

COMMONWEALTH EXCISE REVENUE—CLASSIFICATION.

Particulars.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Beer	4,770,439	5,093,858	5,621,051	6,109,526	6,893,739
Spirits	1,352,092	1,412,761	1,476,773	1,490,176	1,578,385
Concentrated Grape Must	2,683	1,545	1,927	2,142	1,101
Petrol	517,617	625,901	630,068	706,884	681,870
Matches	77,160	77,391	81,039	77,438	81,510
Tobacco	4,822,658	4,962,424	5,087,211	5,283,641	5,592,297
Cigarette Tubes and Papers	362,621	384,173	424,853	450,516	468,659
Licences	11,950	11,120	12,311	11,677	12,630
Playing Cards	10,799	10,594	10,614	12,231	10,906
Wireless Valves	..	..	23,000	66,017	89,242
Total Excise	11,928,019	12,579,767	13,368,847	14,210,248	15,410,339

(b) *States.* Excise collections in each State for the last five years were as follows :—

COMMONWEALTH EXCISE REVENUE—COLLECTIONS, EACH STATE.

State.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
New South Wales ..	5,558,783	5,863,305	6,063,761	6,724,164	7,373,723
Victoria	3,561,681	3,769,155	4,100,054	4,265,286	4,871,017
Queensland	1,139,280	1,200,478	1,212,306	1,250,125	1,304,300
South Australia (a) ..	746,788	760,531	932,145	856,021	717,670
Western Australia ..	810,212	862,501	914,603	957,684	972,131
Tasmania	111,275	123,797	145,688	156,968	171,402
Total	11,928,019	12,579,767	13,368,847	14,210,248	15,410,339

(a) Includes Northern Territory.

(iv) *Other Taxation.* (a) *Collections paid to Revenue.* The Commonwealth Government imposes other taxes as follows:—Land Tax, Estate Duty, Income Tax, War Time Profits Tax, Sales Tax and Flour Tax: Entertainments Tax has been abolished. The following statement shows particulars of the collections on account of each of the above taxes during the last ten years. Owing to certain accounting technicalities the figures herein differ slightly from those on the following pages showing further particulars of the several taxes.

OTHER TAXATION COLLECTIONS, AUSTRALIA.

Year.	Land Tax.	Estate Duty.	Income Tax.	War-time Profits Tax.	Entertainments Tax.	Sales Tax.	Flour Tax.
	£	£	£	£	£	£	£
1928-29 ..	2,988,885	2,080,149	9,841,496	Dr. 24,309	358,697	..	..
1929-30 ..	2,840,078	2,122,478	11,120,029	14,678	316,121	..	..
1930-31 ..	2,758,598	2,068,865	13,604,374	Dr. 794	186,661	3,472,854	..
1931-32 ..	2,156,765	1,385,811	13,481,982	Dr. 33,755	133,072	8,425,067	..
1932-33 ..	1,650,311	1,126,996	10,878,718	Dr. 5,750	134,042	9,369,276	..
1933-34 ..	1,325,393	1,511,296	9,314,768	1,567	51,216	8,695,680	1,253,957
1934-35 ..	1,281,424	1,507,827	8,761,619	Dr. 17,663	Dr. 599	8,554,076	798,354
1935-36 ..	1,326,991	1,472,860	8,775,562	20,956	13	0,432,483	1,150,724
1936-37 ..	1,435,465	1,792,600	8,556,014	..	107	8,008,427	Dr. 12,193
1937-38 ..	1,368,444	1,872,654	9,398,503	Dr. 1,033	1	8,023,886	3,025

"Other Taxation" is assessed and collected in general by the Commissioner of Taxation. The organization comprises an office in each State assessing taxpayers who are concerned with that State only, and a Central office assessing taxpayers whose interests are in more than one State. Taxes, however, may be paid to any office, so that the sums actually received by any office do not correspond to the assessments made by that office and frequently differ by very large amounts. Consequently the actual receipts by any State office, e.g., of income tax by the Queensland office, may include tax in respect of Central Office or New South Wales assessments, and, therefore, may not be a proper measure of income tax paid on account of income derived from Queensland.

The actual receipts by the various offices are the figures of necessity used by the Treasury for accounting purposes, and may be called the "Treasury" figures. These figures have been used in issues of the Official Year Book prior to No. 25. In order to give a more significant picture of the taxation in States, these figures have been discarded, and in their place are given figures supplied by the Commissioner of Taxation, which refer strictly to the assessments made on account of the State specified. The total of these figures do not quite agree with the total Treasury figures owing to certain technicalities of accounting, but the differences are small. The Taxation Office figures give a fair comparison between States, e.g., in taxation paid per head, but do not give the absolute measure of taxation, because the Central Office collections, which include taxation on account of all States, have not been allocated to the States. In the absence of precise information, it may be assumed as a rough approximation that Central Office collections may be divided among States in proportion to State office collections. It is probable, however, that a somewhat larger share is derived from the more populous States, New South Wales and Victoria.

(b) *Land Tax.* Commonwealth Land Tax was first imposed in 1910-11, when the rate of tax was 1 1-30,000d. on the first £1 in excess of an unimproved value of £5,000, increasing by 1-30,000d. for every additional £1 up to £75,000 where the increment of tax was 6d. and the average rate 3½d. The increment of tax of 6d. operated only on the excess of £75,000. The general exemption of £5,000 did not apply to absentees, the rate for whom is always 1d. more than for residents, and the first £5,000 of value for an absentee bore a flat rate of 1d. per £1. In 1914-15, the rate of tax was amended by making the tax on £1, 1 1-18,750d., increasing by 1-18,750d. for each additional £1

reaching an increment of tax of 9d. at £75,000 with an average over the whole of such field of 5d. per £1. The increment of tax applied to the excess over £75,000. Absentees correspondingly paid 1d. per £1 more than residents. A 20 per cent. increase which was imposed in 1918-19 was withdrawn in 1922-23. A reduction of 10 per cent. was granted in 1927-28, but no further alteration in the rates took place until 1932-33, when a reduction of 33½ per cent. was granted, followed by a further alteration in 1933-34 fixing the rates at 50 per cent. of those effective in 1927-28. The unimproved value of lessees' estates on pastoral leases from the Crown was subject to land tax only in the years 1914-15 to 1922-23 inclusive.

Land Tax receipts in each State and Central Office for the years 1933-34 to 1937-38 were as follows. The particulars shown differ slightly from those quoted in (a) above.

LAND TAX RECEIPTS.

State, etc.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Central Office ..	440,522	399,839	471,168	482,127	438,813
New South Wales ..	456,434	471,857	460,030	530,603	505,143
Victoria ..	286,756	274,671	266,033	277,718	277,512
Queensland ..	19,179	29,898	24,827	27,159	26,887
South Australia ..	52,410	51,758	55,104	54,878	48,295
Western Australia ..	41,913	46,337	42,881	51,835	59,074
Tasmania ..	11,644	11,296	12,036	11,539	12,237
Total ..	1,308,858	1,285,656	1,332,079	1,435,859	1,367,961

The rates of land tax were increased by 11·1 per cent in 1938 to raise them to 50 per cent. of those obtaining in 1914-15.

(c) *Estate Duty.* The Commonwealth Estate Duty Act 1914 and Estate Duty Assessment Acts impose a duty on the estates of deceased persons where the net value of the estate exceeds £1,000. The rate of tax where the value of the estate for duty does not exceed £2,000 is £1 per cent. increasing by one-fifth of £1 for each £1,000 or part thereof in excess of £2,000, so that the percentage shall not exceed £15. Where the estate passes to a widow, children, or grand-children, the duty is payable at two-thirds of the ordinary rate.

Particulars of the collections in each State and Central Office for the last five years are appended. Owing to certain accounting technicalities, these figures differ slightly from the Treasury returns given in (a) above.

ESTATE DUTY RECEIPTS.

State, etc.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Central Office ..	697,474	644,177	721,724	989,688	902,266
New South Wales ..	379,544	375,777	314,912	324,315	306,003
Victoria ..	249,808	301,351	237,474	308,719	397,386
Queensland ..	57,104	61,857	74,117	76,784	85,335
South Australia ..	66,734	81,740	71,497	66,441	44,205
Western Australia ..	17,832	20,510	41,397	21,110	31,800
Tasmania ..	40,117	14,635	8,426	10,253	12,506
Northern Territory ..	..	..	73	..	119
Total ..	1,508,593	1,509,053	1,469,530	1,797,366	1,869,719

Particulars relating to the number and value of estates with duty assessed for each of the last five assessment years are given in the table hereunder :—

ESTATE DUTY ASSESSMENTS.

Particulars.		1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Number of Estates	No.	7,374	8,072	8,157	8,887	8,803
Gross Value (a) ..	£,000	45,695	52,434	52,965	56,009	59,419
Dutiable Value ..	£,000	36,989	42,423	42,594	45,121	47,723
Duty Payable ..	£	1,283,848	1,477,170	1,454,450	1,467,355	1,836,946
Average dutiable value	£	5,016	5,256	5,222	5,077	5,421
Average duty per estate	£	174	183	178	165	209

(a) Assessed values.

(d) *Income Tax.* The first Commonwealth Income Tax was levied during the year 1915-16. The Income Tax Assessment Act 1936 consolidated and amended the laws relating to the imposition, assessment and collection of income tax. Full details of this Act and a commentary on the Income Tax law are contained in an explanatory handbook* which also gives particulars relating to the pre-existing law. The following statement gives an index of the rate of normal tax on personal exertion and property incomes up to and including the year 1937-38. The table gives an index of the rate of tax on the taxable amount of income, and does not take into account the variations in assessment due to changes in exemption and abatements and in the methods of assessment.

INCOME TAX—INDEX OF RATE.

Assessment years in which Rates were Amended.	Index of Rate of Tax.	Assessment years in which Rates were Amended.	Index of Rate of Tax.
1915-16	1,000	1929-30	1,214 (a)
1916-17	1,250	1930-31	1,351 (a) (b)
1918-19	1,625	1931-32	1,419 (a) (c)
1920-21	1,706	1932-33	1,419 (a) (d)
1922-23	1,535	1933-34	1,313 (a) (e)
1924-25	1,380	1935-36	1,313 (a) (f)
1925-26	1,200	1936-37	1,181 (a) (g)
1927-28	1,080	1937-38	1,181 (a)

(a) Estimated. (b) In addition, a further tax of 1s. 6d. in the £1 was imposed on all taxable income from property. (c) In addition, a further tax of 2s. in the £1 was imposed on all taxable income from property. (d) In addition, a further tax of 2s. in the £1 was imposed on all taxable income from property over and above the exemption of £250. (e) In addition, a further tax of 1s. 2.4d. in the £1 was imposed on all taxable income from property over and above the exemption of £250. (f) In addition, a further tax of 1s. in the £1 was imposed on all taxable income from property over and above the exemption of £250. (g) Further tax on property abolished.

A new scale of rates was struck for the assessment year 1931-32, designed to consolidate all existing rates to 1930-31, and increase them by 5 per cent. At the same time the further tax on property income was increased to 2s. in the £1. No change was made in the rates of normal tax for the 1932-33 assessment but the further tax of 2s. in the £1 on income from property was payable only on such income in excess of £250. For the 1933-34 assessment the consolidated rate for personal exertion income assessments was reduced by 15 per cent. Ordinary rates on incomes from property remained unaltered, but the further tax was reduced to 1s. 2.4d. in the £1. The rate of tax applicable to companies was reduced from 1s. 4d. in £1 to 1s. in £1.

No alteration was made to the rates of tax in respect of the 1934-35 assessment, but the method of applying the statutory exemption was varied. The special tax on property income was reduced from 1s. 2.4d. in £1 to 1s. in £1, but otherwise the rates

* "Explanatory handbook showing the differences between the Income Tax Assessment Act 1936 and the Income Tax Assessment Act 1922-1934" issued by the Commissioner of Taxation under the authority of the Commonwealth Treasurer, August, 1936.

were not altered for the 1935-36 assessment. A reduction of 10 per cent. was granted for the 1936-37 assessment on incomes derived from personal exertion and property, and the special tax on property incomes was abolished. The rate of tax applicable to companies remained the same, namely, 1s in £1.

The following table shows the receipts from Income Tax in each State and Central Office for the last five years. As previously mentioned, the totals differ from figures already given in (a) above.

INCOME TAX RECEIPTS.

State,	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Central Office ..	3,237,722	3,011,356	2,883,792	2,949,280	3,476,651
New South Wales ..	2,780,215	2,474,276	2,615,474	2,489,536	2,580,359
Victoria ..	1,946,022	1,910,619	1,823,450	1,773,769	1,952,543
Queensland ..	549,157	536,431	577,306	503,891	529,904
South Australia ..	352,193	364,595	398,578	370,895	413,877
Western Australia ..	300,743	321,174	349,374	340,369	326,144
Tasmania ..	107,768	118,692	107,393	104,684	123,902
Northern Territory ..	1,002	1,932	2,434	2,294	2,585
Total ..	9,274,822	8,738,985	8,757,801	8,534,718	9,405,965

The rates of tax were raised by 15 per cent. for the 1938-39 assessment, and the increased rates are approximately 12 per cent. lower than the 1931-32 rates on personal exertion income, and 3.5 per cent. higher than the 1931-32 normal rates on property income.

In the above table differences in the rapidity of assessment and collection will affect the comparison from year to year. With this proviso, the State collections (excluding Central Office collections) relative to population at the beginning of the year specified may be given.

INCOME TAX RECEIPTS PER HEAD OF POPULATION.
(EXCLUDING CENTRAL OFFICE COLLECTIONS.)

State.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
New South Wales ..	31 5	21 5	18 11	19 9	18 8	19 2
Victoria ..	25 5	21 5	20 11	19 10	19 3	21 1
Queensland ..	15 4	11 7	11 2	10 11	10 3	10 8
South Australia ..	11 10	12 1	12 6	13 8	12 8	14 1
Western Australia ..	15 9	13 8	14 6	15 8	15 1	14 4
Tasmania ..	11 8	9 6	10 5	9 5	9 1	10 8
Six States ..	24 0	18 3	17 2	17 6	16 6	17 5

Agreements made in 1923 between the Commonwealth and all the States except Western Australia provide that the Commonwealth tax and the State tax shall be collected by an officer acting for the Commonwealth and State, the Commonwealth appointing the State Commissioner as Deputy Commonwealth Commissioner for the State under the Income Tax Assessment Act of the Commonwealth. Provisions are included relating to the transfer of officers, the accounting of receipts and the division of expenses. A joint form of income tax return is to be used in cases where the income is derived in one State only. The respective agreements are to remain in operation for a period of five years, and thereafter until the expiration of not less than six calendar months, upon notice in writing by either party to the agreement.

In Western Australia an arrangement was made previously by which the Commonwealth undertakes the collection of the State income tax.

(e) *Entertainments Tax.* The tax on admission to entertainments operated from 1st January, 1917, when the rate imposed was 1d. for admissions exceeding 6d. but not exceeding 1s. For admissions exceeding 1s. the rate was 1d. for the first 6d. and $\frac{1}{2}$ d. for each 6d. or part in excess of 1s. On 1st December, 1919, the rate of tax was amended to $\frac{1}{2}$ d. on admissions of 6d., and 1d. where admission exceeded 6d. but did not exceed 1s.; otherwise the original rate operated. A further amendment, operative from 2nd October, 1922, provided for the payment of 1d. for admissions of 1s., but did not affect the rate on admissions exceeding 1s. From 15th October, 1925, until 27th October, 1933, when the Entertainments Tax Act was repealed, the Act provided for the payment of a tax of 2 $\frac{1}{2}$ d. on admissions of 2s. 6d. with an additional $\frac{1}{2}$ d. for each 6d. or part of 6d. by which the payments exceed 2s. 6d.

The amount of Entertainments Tax received in each State for the years 1930-31 to 1934-35 is given below:—

ENTERTAINMENTS TAX RECEIPTS.

State.	1930-31.	1931-32.	1932-33.	1933-34.(c)	1934-35.
	£	£	£	£	£
New South Wales (a) ..	76,597	52,278	52,413	19,383	168
Victoria ..	63,541	47,620	49,650	18,010	Dr. 585
Queensland ..	23,887	16,371	14,798	6,787	43
South Australia (b) ..	4,991	4,051	4,252	1,665	Dr. 2
Western Australia ..	15,068	12,283	10,546	4,475	Dr. 223
Tasmania ..	1,810	1,026	981	332	..
Total ..	185,894	133,629	132,640	50,652	Dr. 599

(a) Includes Australian Capital Territory.
year only, see letterpress above.

(b) Includes Northern Territory.

(c) Portion of

The total collections representing arrears of tax from previous years amounted to £13 in 1935-36, to £107 in 1936-37 and to £1 in 1937-38.

(f) *War Time Profits Tax.* This tax which came into force in September, 1917, provided for a tax on the amount by which the profits made in war time exceed the pre-war standard of profits. Further details regarding its application are given in Official Year Book No. 22, 1929. The net collections, after allowing for refunds, for the five years ended 30th June, 1938, are as follows:—

1933-34, £1,568; 1934-35, Dr. £17,663; 1935-36, £20,956; 1936-37, Nil.; and 1937-38, Dr. £1,033. These collections are in respect of arrears as the Act is now inoperative.

(g) *Sales Tax.* The Sales Tax was imposed in August, 1930, as part of the Budget proposals for the year 1930-31. The rate of tax, which was fixed at 2 $\frac{1}{2}$ per cent., was expected to yield £0.5 millions (£5 millions for the ten remaining months of the financial year) on an estimated taxable field of sales amounting to £260 millions for the year. The actual field for ten months proved to be £138 millions—equivalent to £157 millions for a full year—and realized net collections of £3,471,837. This lower total of taxable sales largely resulted from the volume of sales of exempted goods. The operation of the tax is controlled chiefly by a system of registration of taxpayers, and all manufacturers and wholesale merchants who are the taxpayers under the Act in respect of goods sold in Australia must be registered with the Department. The tax on imports subject to sales tax is collected by the Customs Department at ports of entry.

The Sales Tax legislation was amended on 5th October, 1932, to remove certain difficulties connected with the administration of the Acts; to extend the list of exemptions designed to assist primary production; and to provide for additional exemptions and abatements. Additional exemptions applicable to goods manufactured in Australia

became effective for the period 11th November, 1932, to 30th June, 1933, with the provision that they may be continued by regulation for a period terminating not later than 30th September, 1933; these temporary exemptions were subsequently made permanent.

Further schedules of exemptions were applicable from 26th October, 1933, 1st August, 1934, 25th October and 7th December, 1935, and 11th September, 1936.

Under the Sales Tax Assessment (New Zealand Imports) Act 1933, the Commonwealth provided that the exemptions from Sales Tax applicable to certain goods of Australian origin only shall extend to similar classes of goods of New Zealand origin.

The rate of tax was increased to 6 per cent. on taxable sales to operate during the year 1931-32. The rate of Sales Tax payable was reduced to 5 per cent. from 26th October, 1933, and to 4 per cent. from 11th September, 1936 but was increased to 5 per cent. from 22nd September, 1938.

Particulars of the net amount of Sales Tax payable, and the sales of taxable, non-taxable and exempt goods in each State for the year 1937-38 are given in the following table. The figures regarding "Tax payable" are in respect of the periods 1st July to 30th June of each year adjusted on account of rebates of tax allowed in returns to taxpayers as deductions, while those relating to sales are in respect of the periods 1st June to 31st May.

SALES TAX AND AMOUNT OF SALES, 1937-38.(a)

State or Territory.	Gross Taxable Sales.	Non-Taxable Sales.	Sales of Exempt Goods by Registered Persons.	Net Amount of Sales on which Sales Tax was payable.	Tax Collected.		
					Taxation Department.	Customs Department.	Total.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
New South Wales ..	82,702	79,783	111,791	76,258	3,055	325	3,380
Victoria ..	67,631	71,139	83,126	62,272	2,496	226	2,722
Queensland ..	21,082	10,904	38,015	19,877	797	54	851
South Australia ..	14,459	13,073	24,168	12,870	513	43	556
Western Australia ..	9,466	3,971	20,123	9,599	383	36	419
Tasmania ..	2,735	1,244	6,373	2,597	98	22	120
Northern Territory	8	3	26	6	..	1	1
Total ..	198,083	180,117	283,622	183,479	7,342	707	8,049

(a) The difference between the amount of tax collected and the amount of tax calculated at the ruling rate on the net amount of sales on which tax was payable is due to rebates allowed as deductions from tax without the corresponding deduction from "Net Sales".

Similar details for each year since the inception of the tax in 1930-31 are given in the following table:—

SALES TAX AND AMOUNT OF SALES, 1930-31 TO 1937-38.

Year.	Gross Taxable Sales.	Non-Taxable Sales.	Sales of Exempt Goods by Registered Persons.	Net Amount of Sales on which Sales Tax was payable.	Tax Collected.		
					Taxation Department.	Customs Department.	Total.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
1930-31 ..	145,805	102,663	170,434	138,756	3,179	293	3,472
1931-32 ..	156,608	119,971	189,634	147,730	7,031	501	8,432
1932-33 ..	158,469	135,843	195,285	147,217	8,797	594	9,391
1933-34 ..	162,852	135,877	191,370	150,614	8,166	540	8,706
1934-35 ..	170,256	140,735	202,320	156,791	7,967	614	8,581
1935-36 ..	183,228	156,692	219,756	174,312	8,779	703	9,482
1936-37 ..	187,433	162,046	251,820	174,443	7,522	644	8,166
1937-38 ..	198,083	180,117	283,622	183,479	7,342	707	8,049
Total ..	1,367,734	1,133,944	1,704,241	1,273,342	59,683	4,596	64,279

It should be mentioned that the figures given in the foregoing tables do not represent the total sales of all commodities, as vendors trading in exempt goods only are not required to be registered and consequently the volume of their sales is not included in the above statistics.

(h) *Flour Tax.* In connexion with the Government's decision to provide £3,000,000 for assistance to necessitous wheat farmers who did not during 1932-33 receive income which was subject to Commonwealth Income Tax, the Flour Tax Act was passed in December, 1933. The rate of tax imposed was £4 5s. per short ton on all flour sold or delivered by a miller; imported into Australia; used in the manufacture of goods imported into Australia; or held in stock by a person other than a miller. The Act, which originally operated from 4th December, 1933, and terminated on 31st May, 1934, was expected to yield £1,600,000. The Flour Tax, with a reduction in the rate to £2 12s. 6d. per short ton, was reimposed from 7th January, 1935, and was terminated by proclamation on 24th February, 1936. Net collections after allowing for refunds made and outstanding were as follows:—

FLOUR TAX.

State.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
New South Wales ..	532,538	311,991	459,785	Dr. 8,744	2,400
Victoria ..	362,033	226,163	320,770	Dr. 465	972
Queensland ..	165,898	80,999	153,994	Dr. 1,074	Dr. 329
South Australia ..	99,916	66,900	98,580	Dr. 283	Dr. 15
Western Australia ..	86,992	50,959	80,873	Dr. 1,623	Dr. 3
Tasmania ..	37,503	25,504	40,468	Dr. 4	..
Total ..	1,285,480	761,706	1,145,470	Dr. 12,193	3,925

(i) *Wool Levy.* The Wool Tax Acts assented to in May, 1936, provide for a levy on all wool grown in Australia and shorn on or after 1st July, 1936. The levy is collected through wool-brokers and dealers who furnish quarterly returns on which the levy is assessed. The levy is payable prior to export on wool not previously taxed in the hands of a broker or dealer. The rates applicable are:—6d. per bale; 3d. per fadge or butt; and 1d. per bag. The amounts levied during the past two years were as follows:—

WOOL LEVY.

State.	1936-37.	1937-38.
	£	£
New South Wales ..	32,016	32,089
Victoria ..	15,778	17,030
Queensland ..	11,970	13,962
South Australia ..	6,462	7,246
Western Australia ..	4,768	5,211
Tasmania ..	1,211	1,385
Total ..	72,805	77,523

(j) *Taxation Legislation.* A Royal Commission was appointed by the Commonwealth Government in October, 1932, to inquire into and report upon the simplification and standardization of the taxation laws of the Commonwealth and of the States so far as they relate to similar subject matters of taxation, e.g., income tax, land tax and death duties, and to make recommendations regarding uniformity in legislation and procedure. Four reports covering the field of inquiries were presented and as the result of subsequent conferences between the authorities concerned a substantial degree of legislative uniformity has been attained. It is intended to hold regular conferences in the future to ensure the maintenance of uniformity.

3. *Business Undertaking.*—(i) *Postal Revenue.* Particulars concerning this branch of revenue for each of the financial years from 1933-34 to 1937-38 are contained in the following table:—

COMMONWEALTH POSTAL REVENUE.

Particulars.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Private boxes and bags ..	64,850	66,298	68,488	70,589	73,039
Commission—					
Money orders and postal notes	233,889	248,211	265,999	268,860	280,533
Telegraphs	1,136,928	1,260,388	1,289,772	1,370,518	1,377,623
Telephones	5,647,972	6,027,517	6,521,747	7,061,245	7,571,635
Postage	5,349,776	5,640,159	5,933,884	6,170,144	6,498,212
Radio receipts	336,857	338,593	365,877	429,047	492,995
Miscellaneous	358,899	363,764	393,277	416,214	438,164
Total	13,129,171	13,944,930	14,839,044	15,786,617	16,732,201

The foregoing particulars do not include repayments of States' proportion of pensions or contribution of officers towards pensions under State Acts.

Further particulars of Postal Revenue are given in Chapter V. "Transport and Communication."

(ii) *Railway Revenue.* The Commonwealth Government is responsible for four lines—the Trans-Australian, the Central Australian, the North Australian and the Australian Capital Territory lines. The appended table shows the amounts paid into the credit of the Consolidated Revenue Fund on account of each of these railways for the last five years:—

COMMONWEALTH RAILWAY REVENUE.

Railway.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Trans-Australian ..	205,052	215,012	248,939	270,161	267,754
Central Australian ..	94,444	80,685	98,634	122,698	124,417
North Australian ..	27,714	38,352	30,656	36,440	37,768
Australian Capital Territory	4,530	83	5,379	6,994	5,803
Total	331,740	334,432	383,608	436,293	435,742

The decrease in receipts of the Australian Capital Territory Railway in 1934-35 was due to different accounting methods.

Further particulars are given in Chapter V., part B, Railways.

4. **Other Sources of Revenue.**—The most important investments of the Commonwealth Government from which interest is derived are—Loans to States, General Trust Funds, Loans placed in London, Fixed Deposits with the Commonwealth and other Banks, and certain advances. In 1937-38 the total included interest received from British Government on Development and Migration Loans and advances for miscellaneous purposes, payable by States; Interest on General Trust Fund Investments; Interest, Nauru Island Agreement; repayments of principal and interest in respect of War Service Homes advances; and repayment of advances to the States for the benefit of Settlers. As previously mentioned, the "Balance of Interest on States' Debts" payable by States under the Financial Agreement has not been included in the "Grand Total" in the detailed statement.

Division III.—Expenditure.

1. **Nature of Commonwealth Expenditure.**—The disbursements by the Commonwealth Government of the revenue collected by it fell naturally, under the "book-keeping" system, into three classes, viz. :—

- (a) Expenditure on transferred services;
- (b) Expenditure on new services; and
- (c) Payment to States of surplus revenue;

Of these three, only the first two were actual expenditure, the last being merely a transfer, the actual expenditure being incurred by the States. In accordance with the provisions of the Constitution, the expenditure on transferred services was, under the "book-keeping" system, debited to the several States in respect of which such expenditure was incurred, while the expenditure on new services was distributed *per capita*. Surplus Commonwealth revenue was paid to the States monthly. Until the end of the year 1903-4, new works, etc., for transferred departments were treated as transferred expenditure, and were charged to the States on whose behalf the expenditure had been incurred. In subsequent years all such expenditure was regarded as expenditure on new services, and distributed amongst the States *per capita*. Under the arrangement which superseded the "book-keeping" system, a specific subsidy of 25s. per head of population was made annually by the Commonwealth to the States, and there was no further debiting of expenditure to the several States. The States Grants Act 1927 provided for the abolition of the *per capita* payments as from 30th June, 1927. From 1st July, 1928, the temporary provisions of the agreement between the Commonwealth and the several States under the Financial Agreement Act 1928 were operative, and on 1st July, 1929, the Commonwealth Government took over the debts of the State under this agreement which was ratified by all Governments concerned. This agreement (except the temporary provisions) has been incorporated in Chapter I.

2. **Details of Expenditure from Consolidated Revenue.**—(i) *General.* The following table gives details of the expenditure from Consolidated Revenue during the last five years. The "Balance of Interest on States' Debts" (recoverable from the States) is placed at the foot of the table, but is not included in the "Grand Total" therein. Details for each Department, as constituted at 30th June, 1938, are stated hereafter.

Administrative changes involving the amalgamation of certain departments and the transfer of some services from one department to another which were effected in April, 1932, are referred to in the paragraphs relating to the departments concerned.

* For an exposition of the "book-keeping system" see Official Year Book No. 6, page 780.

COMMONWEALTH EXPENDITURE FROM CONSOLIDATED REVENUE.

Departments, etc.	1933-34.	1934-35.	1935-36.	1936-37.(a)	1937-38.(a)
Departments—	£	£	£	£	£
Governor-General	27,223	28,026	28,240	34,245	35,067
Parliament	357,204	487,983	390,120	505,287	510,494
Prime Minister	1,535,715	1,499,308	1,307,414	1,263,210	1,510,259
External Affairs					
Treasury (b)	2,414,742	2,615,881	2,277,047	1,958,085	2,403,293
Attorney-General	207,279	223,258	239,702	252,158	263,310
Interior	987,333	1,014,178	1,267,480	972,733	1,018,526
Defence—					
Military	1,683,514	1,909,295	2,007,550	2,460,338	2,584,282
Naval	1,691,110	1,954,853	2,254,799	2,580,704	2,497,783
Air	489,872	599,295	653,442	1,224,234	1,419,016
Trade and Customs	797,421	881,964	878,762	891,292	993,503
Health	184,336	190,681	268,021	241,443	402,003
Commerce	893,206	964,238	978,937	1,122,242	1,149,511
Total, Departments	11,268,957	12,434,474	12,623,355	13,569,075	14,851,285
Business Undertakings—					
Postmaster-General	11,422,679	12,015,696	12,523,878	13,203,176	13,964,473
Railways	1,066,006	1,160,822	1,016,968	1,076,077	1,140,315
Total, Business Undertakings	12,488,685	13,176,518	13,540,846	14,279,253	15,104,788
Territories—					
Australian Capital Territory	534,017	539,798	566,289	585,869	615,401
Northern Territory	154,683	165,369	190,832	262,113	381,931
Papua	67,369	69,160	68,509	55,821	48,825
New Guinea	2,989	3,578	3,308	13,431	5,058
Norfolk Island	3,000	3,000	7,200	4,409	5,911
Total, Territories	762,058	780,905	836,138	921,643	1,057,126
New Works	1,443,693	1,052,133	3,237,317	4,319,562	3,551,776
War and Repatriation (c)	19,154,363	19,017,861	18,243,399	18,723,953	18,948,300
Invalid and Old-age Pensions	10,963,090	11,762,030	12,797,726	13,998,793	15,798,687
Maternity Allowances	302,928	329,321	335,552	370,150	400,004
Payments to or for States—					
Interest on States' Debts	7,584,912	7,584,912	7,584,912	7,584,912	7,584,912
Sinking Fund on States' Debts	1,289,819	1,330,910	1,359,880	1,416,548	1,454,385
Special Grants	2,130,000	2,400,000	2,750,000	2,430,000	2,350,000
Federal Aid Roads	2,207,683	2,465,980	2,778,899	3,039,530	4,149,492
Other Grants	..	..	100,000	551,000	450,500
Total to or for States (d)	13,212,414	13,781,802	14,573,691	15,021,990	15,989,289
Relief to Primary Producers	3,044,195	4,322,856	2,449,597	327,000	262,166
Grand Total	72,640,383	76,657,900	78,635,621	81,531,419	85,963,421
Per head of Population	£ s. d. 10 18 4	£ s. d. 11 8 9	£ s. d. 11 12 11	£ s. d. 11 19 8	£ s. d. 12 10 6
Excess Receipts (e)	1,301,570	711,205	3,567,720	1,276,558	3,494,733
Balance of Interest on States' Debts—payable by States	25,480,072	24,390,832	24,786,646	25,081,605	25,580,374

(a) See Note (a) on page 869. (b) Excludes Invalid and Old-age Pensions and Maternity Allowances. (c) For details see § 5. (d) Excludes balance of interest payable on States' Debts (recoverable from States). (e) Appropriated for payment of Invalid and Old-age Pensions in following year. (f) Omitting payments from accumulated excess receipts of prior years (see page 868).

The items included under the above general heads are referred to in some detail later. Particulars for each department do not include the expenditure on new works which is given in (iii) (a) below.

(ii) *Cost of Departments.*—(a) *Governor-General.* Section 30 of the Constitution enacts that, until the Commonwealth Parliament otherwise provides, there shall be payable out of the Consolidated Revenue Fund for the salary of the Governor-General an annual sum of ten thousand pounds, and a proviso is made that the salary of the Governor-General shall not be altered during his continuance in office. The expenditure in connexion with the Governor-General and establishment for the five years 1933-34 to 1937-38 was as follows :—

EXPENDITURE.—GOVERNOR-GENERAL AND ESTABLISHMENT.

Details.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Salary	(b)8,900	9,775	9,882	10,000	10,000
Governor-General's Establishment ..	11,878	11,825	10,773	13,641	15,350
Contingencies (a)	1,984	2,135	3,266	5,913	5,003
Interest and Sinking Fund*	4,463	4,291	4,319	4,691	4,714
Total	27,225	28,026	28,240	34,245	35,067

(a) Represents official services outside the Governor-General's personal interests, and carried out mainly at the instance of the Government. (b) Voluntary reductions.

(b) *Parliament.* Under this head have been grouped all the items of expenditure connected with the parliamentary government of the Commonwealth for the last five years. Although the administration of the Electoral Act and the conduct of elections come within the functions of the Department of the Interior, the expenditure in connexion therewith is fundamentally incurred on account of the parliamentary government system, and for that reason is included herein.

EXPENDITURE.—COMMONWEALTH PARLIAMENT.

Details.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Salaries of Ministers	11,730	12,240	13,260	15,130	15,782
Allowances to Senators	28,363	28,962	29,549	32,617	33,877
Allowances to Members of House of Representatives	59,164	59,401	61,685	67,283	70,058
Officers, staff, contingencies, etc. ..	54,261	55,674	59,101	61,591	64,183
Rent, repairs, maintenance, etc. ..	8,395	12,002	10,962	12,601	12,873
Printing	15,227	21,527	23,075	19,000	22,217
Travelling expenses of Members and others	25,722	27,619	28,968	30,472	33,347
Electoral Office	74,386	83,252	79,375	81,357	86,102
Election expenses	1,047	103,439	611	100,042	101,628
Administration of Electoral Act ..	13,262	15,187	18,017	28,232	29,391
Interest and Sinking Fund	38,178	37,937	42,243	38,283	38,463
Miscellaneous	27,469	30,745	23,274	18,679	8,573
Total	357,204	487,985	390,120	505,287	516,494

In section 66 of the Constitution provision is made for the payment from Consolidated Revenue of an annual sum for the salaries of Ministers, and section 48 specifies the amount of the allowance to each Senator and each Member of the House of Representatives. These amounts, together with subsequent increases will be found on pages 9 and 12 of this issue.

(c) *Prime Minister's Department.* This Department was created during the financial year 1911-12. In addition to the services indicated below, this Department administers the external Territories of New Guinea, Papua, Nauru and Norfolk Island. For convenience, particulars of expenditure on account of these Territories are shown hereinafter under that heading. Figures for 1933-34 and 1934-35 include expenditure in respect of those functions now administered by the External Affairs Department. The expenditure for the last five years is shown in the following table :—

EXPENDITURE.—PRIME MINISTER'S DEPARTMENT.(a)

Details.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Salaries, contingencies and miscellaneous	£ 151,217	£ 246,671	£ 198,215	£ 239,259	£ (b) 472,322
Audit Office	30,817	34,278	38,061	36,587	38,046
Rent, repairs, etc.	7,194	7,441	9,373	7,981	6,568
Public Service Board's Office	35,880	38,206	42,185	49,825	52,807
High Commissioner's Office	51,577	48,629	54,523	59,217	57,945
Interest and Sinking Fund	978,644	914,931	790,516	679,279	630,018
Mail Service, Pacific Islands	40,997	41,000	40,000	40,700	40,346
Secretariat, League of Nations	52,553	54,024	(d)	(d)	(d)
Council for Scientific and Industrial Research	78,599	96,836	126,685	140,534	177,435
Pensions and Superannuation	8,237	7,804	7,856	9,828	9,772
Assistance to Migrant Settlers (c)	100,000	..	..	..	..
North Australia Survey	..	75,000	..	..	25,000
Total	1,535,715	1,564,820	1,307,414	1,263,210	1,510,259

(a) Excluding Territories, see page 888. (b) Includes special appropriation of £250,000 for Science and Industry. (c) To be recovered from Victoria. (d) Included under External Affairs Department. (e) See note (a) to table on page 869.

(d) *Department of External Affairs.* The Department of External Affairs was dissociated from the Prime Minister's Department in 1935-36. Its functions include, *inter alia* communications with British diplomatic missions and consulates on political matters, foreign affairs, inter-Imperial and Dominion political relations, treaties and international agreements, and League of Nations matters, etc. Expenditure for the years 1935-36 to 1937-38 are given in the following table :—

EXPENDITURE—EXTERNAL AFFAIRS.

Particulars.	1935-36.	1936-37.	1937-38.
Salaries and General	£ 7,827	£ 12,417	£ 14,215
Contribution, League of Nations Secretariat	52,687	42,929	34,112
Miscellaneous	9,825	7,758	9,936
Total	70,339	63,104	58,263

Expenditure during the preceding two years on similar services included under the Prime Minister's Department were :—1933-34, £73,450, and 1934-35, £65,512.

(e) *Department of the Treasury.* The sub-departments under the control of the Commonwealth Treasurer are the Treasury, the Pensions Department, the Taxation Office, the Supply and Tender Board, the Superannuation Fund Management Board,

and the Bureau of Census and Statistics which was transferred from the Department of Home Affairs on 13th April, 1932. Details of the expenditure of this Department for the last five years are given in the following table:—

EXPENDITURE.—DEPARTMENT OF THE TREASURY.

Details.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Treasury	48,856	48,336	49,678	50,868	52,234
Taxation Office	510,143	521,171	547,751	579,629	595,238
Pensions Office	102,750	117,348	123,089	125,084	133,864
Maternity Allowance Office	11,729				
Census and Statistics	24,119	26,736	30,022	37,021	47,696
Census	64,357	37,846	23,932	16,207	9,789
Coinage	22,604	..	..	..	..
Rent, repairs, etc.	14,108	12,569	16,841	18,006	17,406
Interest and Sinking Fund	688,674	785,595	775,388	601,605	675,250
Exchange	723,851	722,006	637,998	445,197	579,668
Loan Conversion expenses	51,161	111,294	8	..	126,522
Miscellaneous	(a)152,300	(b)232,980	(b)72,940	(b)84,378	(b)165,592
Departmental Expenditure	2,414,742	2,615,881	2,277,647	1,958,085	2,403,259
Invalid and Old-age Pensions (c)	10,963,090	11,762,030	12,797,726	13,998,793	15,798,687
Maternity Allowance	302,928	329,321	335,552	370,150	400,004
Total	13,680,760	14,707,232	15,410,925	16,327,028	18,601,950

(a) Includes £62,744 to be recovered from Victoria in respect of interest on Soldier Land Settlement loans. (b) Includes £161,153, £12,219, £2,581 and £96,602 under Works and Services Act in 1934-35, 1935-36, 1936-37 and 1937-38 respectively. (c) Includes maintenance of pensioners in charitable institutions.

(f) *Attorney-General's Department.* Prior to April, 1932, the Attorney-General was also Minister for External Affairs, but the expenditure of the latter department is included in that of the Prime Minister's Department. The Bankruptcy Administration was created in 1927-28. Details for the five years 1933-34 to 1937-38 are furnished hereunder:—

EXPENDITURE.—ATTORNEY-GENERAL'S DEPARTMENT.

Details.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Attorney-General's Office	16,252	19,114	20,179	22,985	19,307
Crown Solicitor's Office	22,526	23,070	24,322	26,712	24,869
Salaries of Justices of High Court	18,500	18,500	18,417	18,500	18,500
High Court expenses	11,324	13,198	14,540	14,308	16,039
Court of Conciliation and Arbitration	18,220	19,236	19,748	19,593	22,372
Public Service Arbitrator's Office	2,673	2,751	3,031	3,501	3,721
Rent, repairs, etc.	18,160	18,652	19,523	18,333	14,539
Patents, Trade Marks, etc.	43,773	44,006	53,285	59,346	67,686
Investigation Branch	9,915	10,809	11,537	11,817	13,336
Bankruptcy	31,549	36,255	36,281	37,838	42,249
Reporting Branch	10,256	10,721	10,905	10,953	11,115
Miscellaneous	4,131	6,346	7,874	8,572	8,986
Total	207,279	223,258	239,702	252,158	263,319

(g) *Department of the Interior.* In April 1932, the Departments of Home Affairs and Works were abolished, and the services under the control of these departments were

assumed by a new Department styled the Department of the Interior. The Bureau of Census and Statistics, formerly under the Department of Home Affairs, was, however, transferred to the Department of the Treasury. The Commonwealth Railways and the Northern and Australian Capital Territories, which are administered by the Department of the Interior, are for convenience respectively included under Railways (*m*) and Territories (*n*) hereinafter. The Electoral Office was previously attached to the Department of Home Affairs, but, as was the case in previous years, the expenditure of this branch is included under Parliament, in (*b*) *ante*.

Particulars of the expenditure for the last five years on services under the control of this Department are as follows:—

EXPENDITURE.—DEPARTMENT OF THE INTERIOR.(a)

Details.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.(b)
Salaries, Contingencies and Miscellaneous—	£	£	£	£	£
Administrative ..	93,532	120,736	155,956	175,048	204,553
Meteorological Bureau	31,832	38,178	38,413	44,455	60,675
Solar Observatory ..	4,639	5,006	5,354	5,600	6,587
Forestry Branch ..	5,319	5,571	5,670	6,922	8,009
Rent, Repairs and Maintenance ..	11,040	12,213	13,691	16,930	14,851
Pensions and Retiring Allowances (c) ..	16,570	18,220	18,725	19,069	19,985
Petroleum Prospecting ..	4,850	1,500	256,500	2,800	..
Interest ..	764,506	754,634	713,363	639,109	637,926
Sinking Fund ..	55,045	57,820	59,810	62,800	65,940
All Other ..	..	300	..	..	..
Total ..	987,333	1,014,178	1,267,482	972,733	1,018,526

(a) Excludes Territories, Railways and Electoral Office.

(b) See note (a) to table on page 870.

(c) Includes Superannuation.

(h) *Defence.* The expenditure in connexion with defence for the last five years was as follows:—

EXPENDITURE.—DEPARTMENT OF DEFENCE.

Details.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Defence—	£	£	£	£	£
Chief Office ..	18,808	19,831	21,892	29,785	33,459
Military ..	1,337,294	1,530,813	1,614,743	1,928,415	2,124,937
Audit (Proportion) ..	4,792	5,340	5,946	5,678	7,610
Pensions and Retiring Allowances (a) ..	40,254	45,026	44,107	48,610	52,671
Rent, Repairs, etc. ..	27,084	43,508	45,589	66,476	49,410
Interest and Sinking Fund ..	244,377	235,080	220,412	229,301	234,250
Exchange ..	4,425	29,697	48,861	152,073	79,939
Miscellaneous ..	6,390	..	..	..	..
Total ..	1,683,514	1,909,295	2,007,550	2,460,338	2,584,282
Navy—					
Chief Office ..	1,541,573	1,820,623	2,038,439	2,311,159	2,415,156
Naval ..	..	..	..	..	..
Audit (Proportion) ..	2,053	2,288	2,548	2,434	2,634
Pensions and Retiring Allowances (a) ..	3,491	3,477	4,053	4,302	4,309
Rent, Repairs, etc. ..	16,503	21,918	22,800	26,964	15,465
Interest and Sinking Fund ..	83,241	77,751	73,868	88,862	91,550
Exchange ..	39,164	28,793	113,091	146,983	168,669
Miscellaneous ..	5,085	..	..	..	..
Total ..	1,691,110	1,954,853	2,254,799	2,580,704	2,497,783

EXPENDITURE.—DEPARTMENT OF DEFENCE—*continued.*

Details.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Civil Aviation—					
Salaries and General	24,679	32,305	40,686	53,320	71,862
Development of Civil Aviation ..	93,021	76,235	52,875	211,032	42,816
Rent, Repairs and Maintenance ..	1,924	2,273	3,573	5,948	6,570
Interest and Sinking Fund	3,274	3,270	5,137	5,263	5,868
Other	472	..	..	..	(b) 1,927
Total	124,270	114,083	102,271	275,563	129,043
R.A.A.F.—					
Pay, etc.	323,793	426,671	472,892	677,073	983,008
General Contingencies					
General Stores and Maintenance ..					
Rent, Repairs, etc.					
Interest and Sinking Fund					
Exchange	24,898	24,875	23,697	24,745	28,297
Miscellaneous	2,935	18,366	25,321	219,444	262,093
	3,593	607	4,504	4,573	4,803
Total	365,602	485,212	551,171	948,671	1,289,973
Total	489,872	599,295	653,442	1,224,234	1,419,016
Grand Total	3,864,496	4,463,443	4,915,791	6,265,276	6,501,081

(a) Includes Superannuation.

(b) Empire Mail Scheme.

(i) *Trade and Customs Department.* Under this head have been included the expenditure of all the sub-departments under the control of the Minister for Trade and Customs, in addition to the amounts payable as bounties and the expenses in connexion therewith. Particulars for the five years 1933-34 to 1937-38 are given in the following table:—

EXPENDITURE.—TRADE AND CUSTOMS DEPARTMENT.

Details.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Chief Office	54,700	58,692	64,745	79,706	88,755
Customs—Ordinary	450,886	485,833	520,036	553,310	589,475
Audit (Proportion)	9,355	10,425	11,610	11,086	12,000
Pensions and Superannuation ..	41,861	44,491	44,947	45,548	44,906
Rent, Repairs, etc.	7,120	9,918	11,493	10,872	9,655
Bounties	175,714	207,258	175,422	153,878	210,485
Interest and Sinking Fund	34,893	35,078	35,358	31,418	31,870
Miscellaneous	22,892	30,269	15,151	5,474	6,357
Total	797,421	881,964	878,762	891,292	993,503

(j) *Health Department.* This department came into existence in the financial year 1921-22. The Minister for Health also administers the Department of Repatriation, but

the expenditure on Repatriation is included under War Services. Details of expenditure for the last five years are as follows:—

EXPENDITURE.—HEALTH DEPARTMENT.

Details.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Central Administration ..	26,459	29,765	33,227	37,073	40,308
States, Salaries, Contingen- cies, etc.	71,691	74,513	79,368	83,621	88,414
Interest	17,716	18,348	18,816	19,235	19,289
Sinking Fund	2,351	2,512	2,681	2,825	2,966
Rent and repairs	8,373	8,628	9,914	13,380	11,356
Subsidy, Cattle Tick Con- trol	44,450	45,100	54,450	48,350	69,450
Miscellaneous	13,296	11,815	(a) 70,465	36,959	(b) 170,220
Total	184,336	190,681	268,921	241,443	402,003

(a) Includes grant, maternal and infant welfare £50,000. (b) Includes National Health Campaign, £100,000 and Medical Research, £30,000.

Items included in "Miscellaneous" are subsidies in connexion with the control of venereal diseases and tuberculosis, maternal and infant hygiene, Health Research Council, and grants in aid of research, etc.

(k) *Department of Commerce.* The Department of Commerce was created in April, 1932, by the amalgamation of the Departments of Markets and of Transport. Commonwealth Railways, formerly administered by the Minister for Transport, were transferred to the control of the Minister for the Interior on the amalgamation in 1932. Some details relating to the creation of the Departments of Markets and Transport are given in Official Year Book No. 25, pp. 295-6. Particulars of the expenditure of the Department of Commerce for the last five years are given below:—

EXPENDITURE.—DEPARTMENT OF COMMERCE.

Details.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Salaries, Contingencies and Miscellaneous—					
Administrative	66,141	29,797	41,918	45,042	49,916
Marine	189,762	201,539	206,199	206,199	206,966
Administration of Com- merce Act	58,667	116,166	127,039	141,313	168,216
Oversea Trade Publicity ..	..	15,000	25,000	37,500	37,500
Commercial Intelligence Abroad	9,423	16,669	34,351	32,814	38,795
Wool Publicity and Research Assistance Marketing Pri- mary Produce	15,000	..	(b) 15,808	(b) 189	..
Assistance to Fruit Growers Fruit Bounties	125,000	(a) 135,000	..	..	..
Rent, Repairs, Maintenance, etc.	5,652	5,934	6,189	6,782	8,348
Pensions and Retiring Allowances	8,539	9,695	10,544	10,778	11,714
Interest	178,583	180,534	170,583	191,926	191,637
Sinking Fund	192,262	201,892	211,989	222,589	233,718
All Other	44,177	52,012	55,017	38,003	58,880
Total	893,206	964,238	978,937	1,122,242	1,149,511

(a) Includes £10,000 relief for Mandarin Growers.

(b) To Citrus Industry.

(l) *Postmaster-General's Department.* Details of the expenditure of this Department for the last five years are given in the table hereunder:—

EXPENDITURE.—POSTAL DEPARTMENT.

Details.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Salaries, Stores and Materials,					
Mails, etc.	8,048,760	8,430,612	9,205,416	9,737,926	10,462,332
Audit (proportion)	9,700	9,920	10,140	10,650	10,650
Pensions and retiring allowances	95,232	91,665	90,380	86,029	79,035
Superannuation	215,416	242,611	260,975	283,958	301,078
Rents, repairs, etc.	77,693	103,071	103,865	131,603	117,352
Interest	1,702,183	1,694,466	1,523,057	1,498,967	1,462,843
Sinking Fund	859,618	920,899	971,566	1,023,673	1,075,248
Exchange	389,617	392,727	324,010	370,370	395,935
Loan Redemption and Conversion Expenses	6,677	99,090	..	..	..
Miscellaneous	17,783	30,635	34,469	60,000	60,000
Total	11,422,679	12,015,696	12,523,878	13,203,176	13,964,473

(m) *Railways.* In 1928-29 the Commonwealth Railways were transferred from the Department of Works and Railways to the Department of Markets and Transport. In April, 1932, the administration was placed under the Department of the Interior. The expenditure on railways for the last five years is shown below as distinct from the expenditure of the other services controlled by the latter Department.

EXPENDITURE.—COMMONWEALTH RAILWAYS.

Details.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Working Expenses—					
Trans-Australian	219,614	201,358	198,262	227,515	299,111
North Australian	39,528	42,334	40,908	39,518	40,281
Central Australian	112,136	134,050	138,234	132,859	161,251
Australian Capital Territory	4,917	5,859	5,885	5,809	5,754
Interest	450,178	434,263	427,094	434,916	385,195
Sinking Fund	64,121	67,326	71,494	76,450	71,648
Exchange	81,878	78,533	70,695	68,024	55,875
Contribution to South Australia (Port Augusta-Port Pirie Railway)	..	..	..	..	20,000
Sleeper Renewals, Trans-Australian Railway	76,440	154,430	49,995	65,000	82,293
Miscellaneous	17,194	42,609	14,401	25,986	18,907
Total	1,066,006	1,160,822	1,016,968	1,076,077	1,140,315

Additional details of the financial operations of the Commonwealth Railways are given in Chapter V. "Transport and Communication."

(n) *Territories.* The following table shows the expenditure on account of territorial services for the last five years. The internal territories are administered by the

Department of the Interior, while the Prime Minister's Department controls the external territories. The expenditure has been grouped in one table for convenience:—

EXPENDITURE.—TERRITORIES.

Details.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Internal—	£	£	£	£	£
North and Central Australia (a)	154,683	165,369	190,832	262,113	381,931
Australian Capital Territory (a)	534,017	539,798	566,289	585,869	615,401
External—					
Papua	67,369	69,160	68,509	55,821	48,825
New Guinea	2,989	3,578	3,308	13,431	5,058
Norfolk Island	3,000	3,000	7,200	4,409	5,911
Total	762,058	780,905	836,138	921,643	1,057,126

(a) Exclusive of Railways.

(iii) *Miscellaneous.* (a) *New Works.* The expenditure on additions, new works, etc., during the last five years was as follows:—1933-34, £1,443,693; 1934-35, £1,052,133 (exclusive of £4,160,000 provided from excess receipts for Defence equipment); 1935-36, £3,237,317; 1936-37, £4,319,562 (excluding £2,000,000 provided from excess receipts for Defence equipment); and 1937-38 £3,551,776 (excluding £1,000,000 provided from excess receipts for Post Office works).

(b) *War Services.* Full details concerning the expenditure from Consolidated Revenue upon War and Repatriation will be found in § 5.

Division IV.—Payments to or for the States.

1. *Introductory.*—In some previous issues of the Official Year Book particulars were given of the obligations imposed on the Commonwealth in the Constitution Act with reference to the payments to be made to the States, and the following statement briefly outlines the principal financial provisions of the Constitution in regard to the distribution of revenues received by the Commonwealth.

2. *Uniform Customs Duties.*—Prior to Federation, State revenues were largely derived from Customs and Excise duties and as the Commonwealth Constitution Act (Sections 86 and 90) transferred exclusively to the Commonwealth this source of revenue it was essential that the Constitution should provide adequate compensation for this loss to the States. Section 88 directed that uniform duties of customs must be imposed within two years after the establishment of the Commonwealth. This section was complied with on the 8th October, 1901, by the introduction of the first Customs Tariff Bill.

3. *Special Western Australian Tariff.*—Section 95 of the Constitution authorized the Western Australian Government for a period of five years after the imposition of the uniform customs duties to impose customs duties on goods passing into that State and not originally imported from beyond the limits of the Commonwealth, such duties to be collected by the Commonwealth.

Provision was also contained in this section for the regulation of the rates of duty.

4. *Distribution of Commonwealth Revenue.*—Broadly, the requirements of the Commonwealth Constitution in regard to the financial relationship between the Commonwealth and the States may be divided into three phases covering definite periods.

(a) 1901 to 1910. This period was covered by Section 87 (known as the "Braddon Clause") which provided that;

"During a period of ten years after the establishment of the Commonwealth and thereafter until the Parliament otherwise provides, of the net revenue of the Commonwealth from duties of customs and of excise not more than one-fourth shall be applied annually by the Commonwealth towards its expenditure.

The balance shall, in accordance with this Constitution, be paid to the several States, or applied towards the payment of interest on the debts of the several States taken over by the Commonwealth."

The scheme outlined in the Constitution for determining the amount to be paid to the several States is contained in sections 89 and 93, the former of which relates to the period prior to the imposition of uniform duties of customs (as provided in Section 88), the latter to the first five years after the imposition of such duties and thereafter until Parliament otherwise provides. The principle involved was that of crediting each State with the Commonwealth revenue collected in respect of that State, and of debiting it with the expenditure incurred on its behalf in connexion with transferred departments, as well as its share on a "per capita" basis of the "new" expenditure of the Commonwealth. On this account the method of allocation provided by the Constitution has become very generally known as the "book-keeping system". As the imposition of uniform duties of customs and excise throughout the Commonwealth took place on 9th October, 1901, the five years provided for in section 93 expired on 8th October, 1906, and consequently the "book-keeping system" could then be changed at any time by the Commonwealth Parliament.

Section 93 provided that the duties of customs chargeable on goods imported into and duties of excise paid on goods produced or manufactured in one State and consumed in another should be credited to the consuming State. The balance in favour of any State was paid monthly by the Commonwealth.

The Surplus Revenue Act 1908 continued the "book-keeping system" but provided that any excess of receipts over expenditure should be distributed monthly to each State in proportion to their respective populations. This act more clearly defined "transferred" and "new" expenditure.

(b) 1911 to 1927 (Surplus Revenue Acts.) The provisions of Section 87 of the Constitution were terminated by the passing of the Surplus Revenue Act 1910 which provided for the following scheme of payments to operate from 1st July, 1910:—

- (i) The Commonwealth to pay by monthly instalments or apply to the payment of interest on debts of the States taken over by the Commonwealth an annual sum amounting to twenty-five shillings per head of the number of people of the State;
- (ii) In addition to the above payments all surplus revenue (if any) to be paid to the States in proportion to the number of people.
- (iii) A special payment to be made to Western Australia in monthly instalments of an annual sum of £250,000 in the first year, thereafter progressively diminishing by £10,000 each year. One half of the payments so made to be debited to all of the States (including Western Australia) on a population basis and the amount so debited to be deducted from the amount otherwise payable to each State.

After 1920 and until 1927 the provisions of the several Surplus Revenue Acts continued to govern the payments by the Commonwealth to the States.

(c) 1928 to date (Financial Agreement Act.) An Amendment to the Constitution embodied in Section 105A gave effect to the powers conferred on the Commonwealth in Section 105. This amendment included provisions for:—

- (i) taking over the debts of the several States by the Commonwealth;
- (ii) the payment by the Commonwealth of a fixed annual sum in respect of the interest on such debts and for certain sinking fund contributions;
- (iii) the indemnification of the Commonwealth by the States in respect of debts taken over from the States;
- (iv) the borrowing of money by the States or by the Commonwealth or by the Commonwealth for the States; and
- (v) certain other matters connected with the management, consolidation, renewal, conversion and redemption of such debts.

5. **Special Grants.**—The Constitution provides in Section 96 for the granting of special financial assistance to the States. Reference has already been made herein to the special grant to Western Australia in the Surplus Revenue Act 1910. This State has continued to receive financial assistance each year since 1910–11. In 1912, a grant under similar conditions was made to Tasmania; the amount payable in the first year, 1912–13, was £95,000 which was to be progressively reduced by £10,000 in each successive

year. The Tasmania Grant Act 1913 provided for an addition to this grant bringing the amount payable to £85,000 per annum to the year 1921-22 after which annual grants of varying magnitude were made.

South Australia received £360,000 in 1929-30 and further grants in each successive year.

Other direct grants to the States from consolidated revenue include contributions towards the payment of interest and sinking fund on loans expended by Local Government authorities on public works, and for unemployment relief which covers *inter alia* metalliferous mining and forestry. Grants which have been made from time to time from loan fund are indicated in the statement of loan expenditure on page 894.

From the accumulated excess receipts since 1931-32, special assistance to the States was provided as follows:—

State.	1934-35.	1935-36.	1936-37.
	£	£	£
New South Wales	786,000	205,000	197,000
Victoria	550,000	140,000	137,000
Queensland	286,000	75,000	72,000
South Australia	176,000	45,000	44,000
Western Australia	133,000	35,000	33,000
Tasmania	69,000	..	17,000
Total	2,000,000	500,000	500,000

6. **Commonwealth Grants Commission.**—In 1933, the Commonwealth Government appointed the Commonwealth Grants Commission of three members to inquire into and report upon claims made by any State for a grant of financial assistance and any matters relevant thereto.

Applications were received from the States of South Australia, Western Australia and Tasmania during each year from 1933 and the recommendations of the Commission were as follows:—

State.	Grant Recommended.				
	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	£	£	£	£	£
South Australia	1,400,000	1,500,000	1,330,000	1,200,000	1,040,000
Western Australia	600,000	800,000	500,000	575,000	570,000
Tasmania	400,000	450,000	600,000	575,000	410,000

7. **Grants for Road Construction.**—(i) *Main Roads Development Acts.* Grants amounting in the aggregate to £1,750,000 were made to the States in 1922-23, 1924-25 and 1925-26 for the purpose of reconditioning certain main roads. £1,500,000 of this amount was on the basis of the expenditure by the States of an equivalent amount.

(ii) *Federal Aid Roads.* The Federal Aid Roads Act 1926 made provision for the construction and re-construction of roads in the several States out of moneys provided by the Commonwealth and States respectively. The original arrangement provided for a grant by the Commonwealth of £2,000,000 per annum for ten years from 1st July, 1926. The allocation to the States was based on three-fifths according to population and two-fifths according to area.

Expenditure was made in the proportion of 15s. by the States to £1 by the Commonwealth. The original agreement has been varied in certain respects, the most important of which operated from 1st July, 1931, when in lieu of the £2,000,000 per annum, the Commonwealth agreed to contribute an amount equivalent to 2½d. per gallon

customs duty, and 1½d. per gallon excise duty on petrol entered for home consumption during each year, and the States were not required to make any contribution as formerly agreed upon.

The 1926 agreement, which was originally intended to remain in operation for ten years, was continued until the 30th June, 1937, when a new agreement was entered into. The latter provided for the continuation of the Federal Aid Roads Agreement for a further period of ten years from 1st July, 1937, increased the amount payable to the States to 3d. a gallon Customs duty and 2d. a gallon excise (except benzol, on which the excise is only 1½d.) on petroleum and shale products, and stipulated that the proceeds of the extra ½d. per gallon should be expended on the construction, reconstruction, maintenance or repair of roads, or other works connected with transport. At the request of the Commonwealth Government the States will, up to a limit of one-twelfth of this additional amount, attend to the maintenance or repair of roads of approach to or adjoining Commonwealth properties. A further variation was the reduction from 3 to 2½ per cent. of the sinking fund contribution of the States on loan moneys provided by them between 1926 and 1931.

8. **Amounts Paid.**—(a) 1901 to 1938. The table following shows particulars of the amounts paid to each of the States since Federation, divided into the three periods referred to herein with separate details for Special and Roads Grants. Special Commonwealth grants for the relief of primary producers are not included in this table. Details of these grants will be found in Chapter XX. "Agriculture."

PAYMENTS BY THE COMMONWEALTH TO OR FOR THE STATES TO 30th JUNE, 1938.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	All States.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
1900-01 to 1909-10 (a) ..	27,606	19,815	8,894	6,148	8,728	2,602	73,793
1910-11 to 1926-27 (b) ..	41,634	31,341	15,184	9,925	6,898	4,368	100,350
1927-28 to 1937-38 (c) ..	37,257	26,101	13,845	9,362	6,579	3,290	96,434
Special Grants (d) ..	..	..	..	10,110	8,525	5,746	24,381
Grants for Road Construction, 1922-23 to 1937-38	8,336	5,402	5,676	3,422	5,784	1,506	30,126
Miscellaneous ..	521	631	246	149	229	97	1,873
Total ..	115,354	83,290	43,845	39,116	36,743	17,609	335,957
Special assistance 1934-35 to 1936-37 (e) ..	1,188	827	433	265	201	86	3,000
Grand Total ..	116,542	84,117	44,278	39,381	36,944	17,695	338,957

(a) Under Section 87 of the Commonwealth Constitution.
Revenue Acts.

(c) Under Financial Agreement Act 1928.

(b) Under the several Surplus

(d) Under various State Grants

(e) Provided from excess receipts of the previous years from 1931-32.

(b) 1936-37 and 1937-38. For the years ended 30th June, 1937 and 1938, the payments made to or for each State are given below.

PAYMENTS BY THE COMMONWEALTH TO OR FOR THE STATES, 1936-37.(c)

Particulars.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total.
	£	£	£	£	£	£	£
Contributions towards							
Interest on State Debts ..	2,917,411	2,127,159	1,096,235	703,816	473,432	266,859	7,584,912
Sinking Fund on State Debts (a) ..	589,332	280,645	186,322	167,487	157,015	35,747	1,416,548
Special Grants ..	..	..	..	1,330,000	500,000	600,000	2,430,000
Federal Aid Roads (b) ..	838,910	547,115	571,432	340,506	583,590	151,977	3,030,530
Local Public Works ..	39,400	27,400	14,450	8,700	6,950	3,400	100,000
Metalliferous Mining ..	19,600	27,000	35,600	12,800	34,600	10,400	140,000
Forestry ..	25,000	50,000	15,000	8,500	50,000	12,500	161,000
Unemployment Relief ..	59,200	40,900	21,700	13,000	10,000	5,200	150,000
Total ..	4,488,853	3,100,219	1,940,739	2,590,809	1,815,287	1,086,083	15,021,990

(a) Paid to National Debt Sinking Fund.

(b) Paid to Trust Fund.

(c) Excludes

relief to primary producers. See Chapter XX., § 18.

PAYMENTS BY THE COMMONWEALTH TO OR FOR THE STATES, 1937-38.(c)

Particulars.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total.
	£	£	£	£	£	£	£
Contributions towards Interest on State Debts ..	2,917,411	2,127,159	1,096,235	703,816	473,432	266,859	7,584,912
Sinking Fund on State Debts (a) ..	603,251	287,368	192,518	170,564	162,524	38,160	1,454,355
Special Grants ..	..	..	..	1,200,000	575,000	575,000	2,350,000
Federal Aid Roads and Works (b) ..	1,166,007	726,161	792,553	460,594	796,702	207,475	4,149,492
Local Public Works ..	39,400	27,400	14,450	(d)28,700	6,650	3,400	120,000
Metalliferous Mining ..	13,600	18,700	24,900	..	9,800	3,000	70,000
Forestry ..	12,500	25,000	7,500	4,250	25,000	6,250	80,500
Youth Employment ..	79,000	55,000	25,000	19,000	14,000	8,000	200,000
Total ..	4,831,169	3,266,788	2,153,156	2,586,924	2,063,108	1,108,144	16,009,289

(a) Paid to National Debt Sinking Fund.
Primary producers. See Chapter XX., § 18.
port Pirie Railway.

(b) Paid to Trust Fund. (c) Excludes relief to
(d) Includes £20,000 contribution Port Augusta-

Payments made to States from excess receipts of previous years since 1931-32 are not included in the foregoing tables.

§ 3. Trust Funds.

The Trust Fund balances on 30th June, 1938, amounted to £25,609,787, as compared with £24,250,859 for the corresponding date in the year 1937.

§ 4. Commonwealth Loan Funds and Public Debt.

1. **General.**—Although it was not until 1915 that the Commonwealth Government came into the loan market as a borrower, there had previously existed a Commonwealth Public Debt which included several items, such as the balance of the debt taken over from South Australia and the amount owing to the States for transferred properties. In view of the large expansion of the Public Debt, and its present importance in Commonwealth public finance, the different items are treated seriatim in the following paragraphs.

2. **Loans taken over from South Australia.**—The first portions of the debt were contracted at the beginning of 1911, when the Commonwealth assumed responsibility for the payment of interest on transferred properties (further dealt with in par. 4) and for the administration and the liabilities of the Northern Territory and the Port Augusta-Oodnadatta Railway. At 30th June, 1911, the debt on account of the former was £3,657,836, and on account of the latter, £2,274,486—a total of £5,932,322. As the securities fall in they are redeemed by the Commonwealth Government, the money required being provided from the National Debt Sinking Fund. At 30th June, 1938, the debt outstanding amounted to £203,472, of which £178,324 was on account of the Northern Territory, and £25,148 on account of the railway.

3. **Loan Fund for Public Works, Redemptions, etc.**—Up to the year 1911 the Commonwealth Government had met its public works expenditure out of revenue. In that year, however, in view of the heavy prospective cost of the Trans-Australian Railway and the Australian Capital Territory, a Loan Fund similar to those of the States was instituted. The initiation of this fund was greatly assisted by the fact that the Treasury at that time held a large quantity of gold, principally on behalf of the Australian Notes Account. Up to 30th June, 1914, the money required for loan expenditure was obtained mainly from this source at 3½ per cent., and inscribed stock of an equivalent value was created. Since the outbreak of war, the money required for the Loan Fund has been mainly obtained by the issue of Treasury Bills and other securities issued in London and

New York as well as in Australia. In 1931-32 and 1932-33, all expenditure on works, other than unemployment relief works, was made from revenue.

COMMONWEALTH EXPENDITURE FROM LOAN FUND.

Particulars.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.	Total to 30th June, 1938.
	£	£	£	£	£	£
Works, Buildings, Land, etc.—						
Shipbuilding Yards and Docks	..	..	..	..	..	733,711
Ship Construction	Cr. 469	..	Cr. 120,138	..	..	7,451,543
A.C.T. Works, Services and	..	..	..	..	..	..
Acquisition of Land	58,764	105,109	132,537	100,553	Cr. 5,514	2,508,340
Northern Territory	..	7,618	32,025	19,127	Cr. 61	169,912
Drill Halls, Stores, Barracks, etc.	137,818	2,475	15,426	Cr. 2,877	339,316	919,242
Rifles and Ammunition Reserve	..	..	..	..	109,180	424,480
Other Military Services	..	..	..	..	101,959	101,959
Naval Bases, Depots, etc.	..	Cr. 13,765	2,833	Cr. 12,308	106,970	1,621,586
Fleet Construction	..	135,484	116,881	..	451,350	1,086,747
Air Services—	27,635	..	..	..	..	..
R.A.A.F.	..	1,790	1,710	..	673,026	1,142,105
Civil Aviation	..	20,198	20,273	65	112,550	214,291
Buildings and Works, Munitions Production	..	4,857	11,211	8,530	273,945	1,485,545
Lighthouses and Lighthouse Services	..	..	600	Cr. 3,010	Cr. 1,000	640,490
River Murray Waters Act	..	..	..	..	..	2,105,625
Telegraph and Telephone Construction	..	1,162,415	207,815	300,000	..	31,695,198
Post Office Buildings and Land Wireless	..	78,225	16,440	2,193	Cr. 451	3,495,161
Serum and Health Laboratories	..	605	4,462	..	..	56,230
Other Health Services	..	8,000	4,005	460	..	80,140
Repatriation Services	..	1,468	33,478	1,434	..	470,020
Railways—	..	..	..	..	..	..
Trans-Australian	..	1,197	Cr. 16,249	Cr. 2,770	Cr. 938	6,643,538
North Australian	..	..	..	..	..	1,807,580
Central Australian	..	104	2,639	..	..	2,181,500
Australian Capital Territory	..	..	..	..	..	28,585
Grafton-South Brisbane	..	..	Cr. 1,500	..	..	2,448,000
Port Augusta-Port Pirie	Cr. 2,000	..	122,085	361,011	..	483,000
Other Expenditure	..	..	..	..	..	200,000
Papua—Railways, Wharves, Buildings, etc.	..	..	..	..	..	..
War Service Homes (b)	..	4,386	4,773	..	..	76,329
London Offices	..	..	10,614	..	..	7,329,523
Acquisition of Properties not elsewhere included	..	2	2,728	6,645	Cr. 263	137,048
Miscellaneous	..	2,582	18,923	..	..	21,505
Assistance to States for—	..	..	..	..	..	..
Mining	..	75,000	144,750	64,000	..	283,750
Unemployment Relief	300,161	272,883	363,728	332,880	Cr. 8,895	2,570,327
Forestry	..	64,000	223,000	35,000	..	322,000
Roads	..	..	..	..	..	249,686
Total, Works, etc.	521,909	1,934,633	1,375,349	1,210,963	2,049,215	87,752,797
Other purposes—	..	..	..	..	..	..
Loans for Works to External Territories—	..	..	..	..	..	..
Papua	..	..	..	..	..	53,420
New Guinea	..	..	..	..	..	40,496
Immigration (a)	..	..	..	..	..	1,680,834
Subscription to Capital of Commonwealth Oil Refinery	..	..	..	..	..	343,751
Subscription to Capital of Amalgamated Wireless Ltd.	..	..	..	..	..	300,000
Advances for Wire and Wire Netting	..	..	..	..	..	610,838
Wheat Bounty	..	..	..	..	..	3,429,571
Farmers' Debt Adjustment..	257	..	43	..	..	4,317,000
Total Loan Expenditure	522,166	1,934,633	1,692,392	2,710,963	4,549,215	98,528,707

(a) Exclusive of Loans to States for Immigration purposes. (b) Prior to 1923-24, expenditure amounting to £13,045,408 was made from War Loan Fund. The total loan expenditure to 30th June, 1938, was £20,374,931.

4. **Properties Transferred from States.**—At the time of federation, when the Commonwealth took over the control of several departments previously administered by the States, a large amount of property was handed over to the Commonwealth Government, which paid interest to the States at the rate of $3\frac{1}{2}$ per cent. on the value of the properties so transferred. (Particulars of the valuation of the properties are given in Official Year Book No. 14, page 604). The temporary provisions of the Financial Agreement between the Commonwealth Government and the Governments of the several States provided *inter alia* that the Commonwealth Government would for the period of two years from 1st July, 1927 pay to each State interest at the rate of 5 per cent. per annum on the agreed value of transferred properties as follows:—New South Wales, £4,788,005; Victoria, £2,302,862; Queensland, £1,560,639; South Australia, £1,035,631; Western Australia, £736,432; and Tasmania, £500,754; a total of £10,924,323.

From 1st July, 1929, the Commonwealth Government assumed all liability for so much of the Public Debt of the States maturing in London bearing interest at the rate of 5 per cent. per annum as is equivalent to the agreed value of the transferred properties shown above. The Commonwealth Government received the freehold or equivalent title to the transferred properties consisting of land or interests in land, and all liability of the Commonwealth to the State in respect of transferred properties was extinguished from that date.

5. **War Loan from the Imperial Government.**—On the outbreak of the European war in 1914, the Commonwealth Government obtained a loan from the Imperial Government for the purpose of financing the prospective large military expenditure. At first, the arrangement was that the Imperial Government should advance the sum of £18,000,000. Subsequently further loans amounting to £31,500,000 were negotiated. In addition to this capital indebtedness of £49,500,000, a further sum of £42,696,500 was due to the British Government for the maintenance of Australian troops.

Early in 1921 an arrangement was concluded with the Imperial Government, by which almost the entire debt (upwards of £92,000,000) was consolidated. The Commonwealth Government undertook to extinguish the debt in about 35 years by annual payments representing 6 per cent. on the original debt, providing for interest at approximately £4 18s. 4d. per cent., and a sinking fund of approximately £1 1s. 8d. per cent. The Imperial Government agreed to suspend for 1931–32 and 1932–33 the repayment of principal moneys due under the Funding arrangement, and under the “Hoover Plan,” the payment of interest for the year 1931–32 was also suspended, the suspended payments under the “Hoover Plan” to be liquidated by ten equal annuities running from 1st July, 1933, at a rate of interest to be determined. These annuities are additional to the usual annual payments. Interest payments due in 1932–33 and subsequent years were suspended by arrangement with the British Government. The suspension of interest and sinking fund payments represented an annual saving to the Commonwealth Government of approximately £7,000,000, including exchange. The principal outstanding on 30th June, 1938, was £79,724,221.

6. **Flotation of War Loans in Australia.**—In addition to the advances from the Imperial Government, the Commonwealth Government raised large amounts of money in Australia. Full details of the seven War Loans are given in Official Year Book No. 14.

7. **London Conversion Loans.**—Loans aggregating £22 millions were due for redemption in London in 1932–33, and in addition the Government had optional rights of redemption over a further £88 millions, all of which were carrying an interest burden of 5 per cent. or greater. These obligations, particularly the accumulation of loans with optional rights of redemption, presented some difficulty to the Government and led to the appointment of a Resident Minister in London, who, in conjunction with the Australian Loan Council, arranged for the conversion of Commonwealth and State securities amounting to £109,849,000 between October, 1932, and February, 1934. In November, 1934, January and July, 1935, and in January and June, 1939, additional conversions were effected of loans maturing and loans with optional rights of redemption

aggregating nearly £89 millions. In June, 1937, the £12,361,000 New South Wales 3½ per cent. loan which was the first conversion effected in London after the appointment of the Resident Minister was re-converted at the same rate of interest, issue price, 96½, and redeemable in 1950-52. In November, 1937 loans amounting to £11,409,965 on account of New South Wales, South Australia and Tasmania were re-converted at the same rate of interest (3½ per cent.) with an issue price of 97 and redeemable in 1951-54.

Details of the several conversions effected during the period October, 1932, to November, 1937, are given in the following table:—

DETAILS OF LOANS CONVERTED IN LONDON, 1932 to 1938.

When Converted.	Common- wealth or State.	Amount.	Old Loan.		New Loan.				Annual Saving.							
			Interest Rate (nominal).	Yield to Investor.	Interest Rate (nominal).	Price of Issue.	Yield to Investor.	Year of Maturity.	Interest. (a)	Exchange (b)						
		£'000.	%	£ s. d.	%	£	£ s. d.		£'000.	£'000.						
1932— October ..	N.S.W.	12,361	5½	5 15 0	3½	97½	4 1 2	1936-37	222	56						
1933— February ..	N.S.W.	9,622	4	3 19 8	4	100	4 0 0	1955-70	180	45						
May ..	N.S.W.	6,427							83	21						
	S.A. ..	2,983							56	14						
	Tas. ..	2,000	6½	6 10 0	3½	99	3 14 10	1937-38	204	52						
July ..	N.S.W.	9,527	6	6 8 4	4	99	4 1 10	1943-48	40	10						
	Qld. ..	2,000							65	16						
	S.A. ..	2,978							60	15						
	W.A. ..	2,716	6	6 10 11	3½	98	3 17 11	1948-53	360	..						
September	C'wealth	15,000							97	25						
	N.S.W.	4,901							21	5						
	W.A. ..	1,050	5½	5 19 3	3½	99	3 16 9	1946-49	53	14						
December	N.S.W.	2,981	5½	5 10 1					3½	99	3 16 9	1946-49	119	30		
	Vic. ..	2,980											5	5 12 2	73	19
	S.A. ..	3,907															15	4
	Tas. ..	5,633	5	5 3 3												
		1,146		5 2 6												
1934— February ..	N.S.W.	3,979	5	5 3 7	3½	97	3 13 8	1954-59	61	15						
	Vic. ..	13,876							206	52						
	Qld. ..	3,782							97	25						
November	C'wealth	83	5½	6 2 4	3½	99	3 5 11	1964-74	1	..						
		574	4	3 19 6					4	1						
	S.A. ..	780	3½	3 13 0					1	1						
		3,078	4	3 19 6	3½	99	3 5 11	1964-74	23	6						
		2,235	3	3 4 2					4	1						
	W.A. ..	463	3½	3 7 1					1	..						
		2,497	3½	3 10 6	3½	99	3 5 11	1964-74	6	2						
		3,745	5	5 6 9					72	18						
	Tas. ..	138	4½	4 5 0					1	..						
		1,000	4	3 18 10					7	..						
1935— January ..	C'wealth.	17,355	5	5 2 8	3½	100	3 5 0	1956-61	316	80						
	Vic. ..	807							15	4						
	Qld. ..	1,328							24	6						
	S.A. ..	799	3½	3 12 10	2½	99	2 18 6	1941-43	14	4						
	W.A. ..	1,895							34	9						
	Tas. ..	200							4	1						
July ..	N.S.W.	12,420	3	3 4 0	3	100	3 0 0	1939-41	8	2						
	Vic. ..	1,050	5	5 0 0					21	5						
1936— January ..	N.S.W.	21,657	3½	3 3 1	3	95½	3 5 9	1955-58	421	107						
June ..	C'wealth.	372							2	..						
	N.S.W.	10,955							208	53						
	S.A. ..	1,996	3½	3 12 10	2½	99	2 18 6	1941-43	13	3						
	W.A. ..	2,631	4½	5 0 7					49	13						
		597	3	3 1 7					1	..						
1937— June ..	N.S.W.	12,361	3½	4 1 5	3½	96½	3 16 2	1950-52	37	9						
November	N.S.W.	6,427							3	1						
	S.A. ..	2,983							3½	3 14 10	3½	97	3 15 1	1951-54	1	1
	Tas. ..	2,000							1	..						
Total ..		222,284	(c) 4.88	(c) 5 2 2	..	98.2	13 11 9	..	3,299	837						

(a) Interest savings have been calculated on the yield to the investor worked on the issue prices of the old and new loans respectively. (b) Calculated at 25½ per cent. (c) Approximate average.

Particulars of the total amounts converted to date and the annual savings on account of interest and exchange in respect of the Commonwealth and of each State are as follows :—

Commonwealth or State.	Amount Converted.	Annual Savings.		
		Interest.	Exchange.	Total.
	£	£	£	£
Commonwealth	33,383,401	682,984	173,307	856,291
New South Wales	113,618,171	1,493,065	379,124	1,872,189
Victoria	22,620,392	360,979	91,598	452,577
Queensland	7,109,469	161,157	40,894	202,051
South Australia	21,238,834	276,503	70,299	346,862
Western Australia	17,830,181	240,308	60,978	301,286
Tasmania	6,483,750	83,722	21,325	105,047
Total	222,284,198	3,298,778	837,525	4,136,303

8. Loan Raisings, 1936-37 and 1937-38.—Particulars of Loan raisings during the past two years are given in the following table :—

LOAN RAISINGS, AUSTRALIA, 1936-37 AND 1937-38.

Service.	For—	Rate of Interest.	Year of Maturity.	Price.	Amount.
		%			£
1936-37—					
Works(a)	Commonwealth States ..	3½	1951-52	97½	597,680
Purchase of Vessel (c)(b)	States ..	3½	1937-47	100	6,918,640
Works(a)	Commonwealth States ..	3½	1948-49	99½	260,000
Conversion(b)	Commonwealth	3½	1950-52	96½	524,670
Works, Redemptions, etc.(c)	States ..	(d)	(d)	(d)	7,346,000
1937-38—					12,360,958
Conversion(b)	Commonwealth	3½	1951-54	97	1,946,510
Works(a)	Commonwealth States ..	3½	1951-52	99½	11,400,965
Defence(b)	Commonwealth	3½	1952-56	99	1,339,010
Redemption of Treas- ury Bills(b)	Commonwealth States ..	3½	1952-54	99½	6,855,750
Defence and Works(a)	Commonwealth States ..	3½	1952-54	99½	2,000,000
Works, Redemptions, etc.(c)	States ..	(d)	(d)	(d)	5,000,000
					5,169,640
					5,248,490
					1,312,340

(a) Raised in Australia. (b) Raised in London. (c) "Over the Counter Sales" and Conversion at State Treasuries. (d) Various. (e) Loan of £266,000 for purchase of coastal vessel. Proceeds of loan received in instalments to 1st January, 1938.

Some detailed particulars of conversion loans in London are given in the preceding paragraph.

9. Public Debt for Commonwealth Purposes.—(i) *Total Debt.* Reference has already been made to the development of the Commonwealth Public Debt and the table appended shows the debt of the Commonwealth (excluding that of the States) at 30th June, 1938 :—

PUBLIC DEBT FOR COMMONWEALTH PURPOSES AT 30th JUNE, 1938.

Particulars.	Maturing in—			Total. (a)
	London.	New York.	Australia.	
	£ Stg.	£ (c)	£ Aust.	£
War Debt—				
Stock, Bonds, etc.	11,020,160	..	179,058,853	190,079,013
Indebtedness to United Kingdom Government	79,724,221	..	..	79,724,221
Total	90,744,381	..	179,058,853	269,803,234
Works and other Purposes—				
Short dated Treasury Bills and Debentures	5,495,160	..	..	5,495,160
Other Treasury Bills (d)	..	..	10,692,248	10,692,248
Stock, Bonds, etc.	61,964,536	16,080,972	26,605,439	104,650,947
Balance of Loans taken over from South Australia—				
Northern Territory	149,100	..	29,324	178,324
Port Augusta Railway	10,450	..	14,698	25,148
Total, Works and other Purposes	67,619,246	16,080,972	37,341,609	121,041,827
Total Commonwealth Purposes ..	158,363,627	16,080,972	216,400,462	390,845,061

PER HEAD OF POPULATION. (b)

	(Stg.)	(c)	(Aust.)	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
War	13 3 3	..	25 19 6	39 2 9
Works and other Purposes	9 16 2	2 6 8	5 8 4	17 11 2
Total Commonwealth Purposes ..	22 19 5	2 6 8	31 7 10	56 13 11

(a) The total "face" or "book" value of the public debt without adjustment on account of currency changes since the loans were floated. (b) Based on population at 30th June, 1938.
(c) Payable in terms of dollars. For the purposes of these tables dollars have been arbitrarily converted to £s. at the rate of 4.8665 to £ Stg. (d) General Trust Fund investment.

(ii) *Loans to States for Soldier Land Settlement.* In regard to the item "Advances to States for Soldier Land Settlement", the Commonwealth Government agreed to make remissions to the States in connexion with the losses sustained in respect of Soldier Land Settlement. In anticipation of the ratification of the proposals by all Governments concerned, the Commonwealth Government from 1st October, 1925, assumed responsibility for £5,000,000 of States' debts maturing in Australia, and an additional amount of £2,597,783 from 1st July, 1927. Further reference is made to this matter in Chapter IV. "Land Tenure and Settlement."

(iii) *Place of Flotation.* The loans taken over from South Australia, which constituted the first portion of the Federal Public Debt, included both London and Australian securities. The presence in the Treasury of a large holding of gold and the moderate rate of interest ruling on gilt-edged securities made the conditions in 1911 and for some little time afterwards very favourable for the local flotation of loans.

London securities were redeemed as they fell due, and replaced by the $3\frac{1}{2}$ per cent. stock of the Loan Fund. Consequently, up to 1914 the amount of the securities repayable in London fell steadily, and the amount repayable in Australia rose rapidly. In 1915 the military loan from the Imperial Government caused a sharp rise in the amount of the securities repayable in London, which was maintained in the following two years. This was, however, more than offset by the local flotation of war loans. In 1925-26 a loan of £15,411,487, of which £10,402,754 was for Commonwealth purposes and £5,008,733 for the States, was raised in New York. The appended table gives particulars of Commonwealth loans outstanding in each of the last five years which had been floated overseas and in Australia respectively.

PUBLIC DEBT FOR COMMONWEALTH PURPOSES.—PLACE OF FLOTATION.

At 30th June—

Place of Flotation, etc.		1934.	1935.	1936.	1937.	1938.
War Debt—						
London	£ Stg.	90,744,380	90,744,381	90,744,381	90,744,380	90,744,381
Total Overseas (a) ..		90,744,380	90,744,381	90,744,381	90,744,380	90,744,381
Australia	£ Aust.	189,403,799	187,716,301	186,361,597	183,063,205	179,058,853
Total War Debt (a) ..		280,148,179	278,460,682	277,105,978	273,807,585	269,803,234
Works and other purposes—						
London	£ Stg.	66,788,760	66,488,759	65,540,946	65,034,247	67,619,246
New York	£ (b)	16,711,476	16,526,641	16,351,176	16,201,952	16,080,972
Total Overseas (a) ..		83,500,236	83,015,400	81,892,122	81,236,199	83,700,218
Australia	£ Aust.	29,402,361	32,674,988	32,041,501	31,866,557	37,341,609
Total Debt for Works, etc. (a)		112,902,597	115,690,388	113,933,623	113,102,756	121,041,827
Total Debt—						
London	£ Stg.	157,533,140	157,233,140	156,285,327	155,778,627	158,363,627
New York	£ (b)	16,711,476	16,526,641	16,351,176	16,201,952	16,080,972
Total Overseas (a) ..		174,244,616	173,759,781	172,636,503	171,980,579	174,444,599
Australia	£ Aust.	218,806,160	220,391,289	218,403,098	214,929,762	216,400,462
Grand Total (a) ..		393,050,776	394,151,070	391,039,601	386,910,341	390,845,061

(a) The figures given represent the total "face" or "book" value of the public debt without any adjustment on account of currency changes since the loans were floated. (b) See note (c) to table on page 898.

The particulars given above for war debt maturing in Australia take into account the remissions by the Commonwealth on account of losses incurred by the States in connexion with Soldier Land Settlement, and differ on that account from the figures given in some earlier issues.

(iv) *Amount of Debt at Various Rates of Interest.*—The first debt taken over from South Australia consisted mainly of securities bearing interest varying from 3 per cent. to 4 per cent., the average rate of interest for the first year being £3 12s. 4d. For the

first three years the increase in the debt was due almost entirely to the expansion of the $3\frac{1}{2}$ per cent. stock of the Loan Fund, consequently the average rate of interest fell steadily, until on 30th June, 1914, it stood at £3 11s. 10d. With the loans raised for war and repatriation purposes interest rates rose until the National Debt Conversion Loan (July-August, 1931), reduced interest rates on internal loans by $22\frac{1}{2}$ per cent. Conversion loans in London referred to on page 895 have reduced the average rate of interest on debt maturing in London by nearly one per cent. from £4 18s. 11d. per cent. in 1932 to £4 18s. 5d. in 1938. The average rate of interest on internal loans at 30th June, 1938, was £3 16s. 9d. per cent. as compared with £5 10s. 4d. per cent. at 30th June, 1931. The average rate of interest payable on the total debt decreased from £5 5s. 0d. per cent. in 1931 to £3 19s. 0d. per cent. at 30th June, 1938.

The accompanying table gives particulars of rates of interest on the debt for Commonwealth purposes for the year ended 30th June, 1938.

PUBLIC DEBT FOR COMMONWEALTH PURPOSES.—RATES OF INTEREST.

Rates of Interest.				At 30th June, 1938—Debt Maturing in—			
	Per cent.	London.	New York.	Australia.	Total.		
		£ (Stg.)	£ (c)	£ (Aust.)	£ (a)		
5.0		29,156,495	12,319,129	(b) 5,409	41,481,033		
4.91667		79,724,221	..	..	79,724,221		
4.75		6,000,000	..	..	6,000,000		
4.65		..	..	339,120	339,120		
4.5		..	3,761,843	..	3,761,843		
4.45625		..	..	84,650	84,650		
4.2625		..	..	959,826	959,826		
4.25		..	..	88,382	88,382		
4.06875		..	..	3,119,840	3,119,840		
4.0		..	..	(f) 173,531,860	(f) 173,531,860		
3.875		..	..	8,826,316	8,826,316		
3.75		20,838,300	..	9,412,510	30,250,810		
3.675		..	..	66,510	66,510		
3.5		159,523	..	1,145,310	1,304,833		
3.375		..	..	527,020	527,020		
3.25		16,618,095	..	73,910	16,692,005		
3.0		27	..	7,471,351	7,471,378		
2.90625		..	..	772	772		
2.75		371,806	..	..	371,806		
2.7125		..	..	2,008	2,008		
2.25		4,495,160	..	..	4,495,160		
2.0		1,000,000	..	..	1,000,000		
1.75		..	..	10,692,248	10,692,248		
Overdue		..	..	(d) 52,820	(d) 52,820		
Total		158,363,627	16,080,972	216,400,462	390,845,061		
Average rate per cent.		£ s. d. (e) 4 1 5	£ s. d. 4 17 8	£ s. d. 3 16 9	£ s. d. 3 19 0		

(a) See note (a) to table on page 898.

(b) War Savings Certificates.

(c) See note (c) to

table on page 898. (d) Includes War Savings Stamps, £14,350 and War Gratuity Bonds, £13,531.

(e) War Debt due to Government of the United Kingdom (see par. 5, page 895).

(f) Includes

unconverted securities, £12,560.

(v) *Amount of Interest Payable.* The next table shows the interest payable in Australia and overseas on the Commonwealth Public Debt (excluding amounts raised on behalf of the several States and debts of the States taken over) at 30th June in the years 1934 to 1938 inclusive.

PUBLIC DEBT FOR COMMONWEALTH PURPOSES.—INTEREST PAYABLE.

At 30th June—							
Interest on and where payable.			1934.	1935.	1936.	1937.	1938.
War Debt—							
London	£ Stg.	(c) 426,008	(c) 426,008	(c) 426,008	(c) 426,008	(c) 426,008	(c) 426,008
Australia	£ Aust.	7,571,996	7,501,517	7,443,363	7,310,325	7,149,993	
Total War Debt ..	£ (a)	7,998,004	7,927,525	7,869,371	7,736,333	7,576,001	
Average Rate ..	%	£3 19s. 10d.	£3 19s. 9d.	£3 19s. 9d.	£3 19s. 9d.	£3 19s. 9d.	
Works and other Purposes—							
London	£ Stg.	3,000,772	2,682,387	2,651,593	2,614,254	2,775,201	
New York	£ (b)	814,646	805,973	797,954	790,935	785,240	
Total Overseas ..	£ (a)	3,815,418	3,488,360	3,449,547	3,405,189	3,560,531	
Australia	£ Aust.	886,445	931,615	919,692	935,572	1,151,759	
Total Debt for Works, etc.	£ (a)	4,701,863	4,419,975	4,369,239	4,340,761	4,712,290	
Average Rate ..	%	£4 3s. 4d.	£3 16s. 6d.	£3 16s. 9d.	£3 16s. 10d.	£3 17s. 10d.	
Total Debt—							
London	£ Stg.	c3,426,780	c3,108,395	c3,077,601	c3,040,262	c3,201,290	
New York	£ (b)	814,646	805,973	797,954	790,935	785,240	
Total Overseas ..	£ (a)	4,241,426	3,914,368	3,875,555	3,831,197	3,986,539	
Australia	£ Aust.	8,458,441	8,433,132	8,363,055	8,245,897	8,301,752	
Grand Total ..	£ (a)	12,690,867	12,347,500	12,238,610	12,077,094	12,288,291	
Average Rate ..	%	£4 1s. 1d.	£3 18s. 7d.	£3 18s. 8d.	£3 18s. 8d.	£3 19s. 0d.	

(a) The totals shown represent the nominal amount of interest, taking no account of exchange.
 (b) See note (c) to table on p. 898. (c) Excludes suspended interest on War Debt owing to British Government.

(vi) *Dates of Maturity.* The dates of maturity of the several portions of the Commonwealth debt are shown hereunder according to financial years. On that account the figures given are not directly comparable with those published prior to 1929–30 which were given for calendar years. In previous years the Public Debt has been shown classified according to the latest date of maturity but in this issue a table has been added showing the debt classified according to the earliest date of maturity. The Commonwealth Government has refrained from issuing interminable stock, but, in respect of a small proportion of the debt, no definite date of maturity had been assigned on 30th June, 1938.

PUBLIC DEBT FOR COMMONWEALTH PURPOSES, AT 30th JUNE, 1938.
(CLASSIFIED ACCORDING TO LATEST DATE OF MATURITY.)

Due Dates (year ended 30th June).				Maturing in—			Total.
				London.	New York.	Australia.	
				£ (Stg.)	£ (a)	£ (Aust.)	£ (b)
1939	..	..	..	5,654,684	..	45,119,885	50,774,569
1940	..	..	..	..	..	447,438	447,438
1941	..	..	..	..	..	902,270	902,270
1942	..	..	..	..	..	30,577,360	30,577,360
1943	..	..	..	371,806	..	4,315,990	4,687,796
1944	..	..	..	..	..	1,145,310	1,145,310
1945	..	..	..	..	..	24,263,232	24,263,232
1948	..	..	..	..	..	21,585,027	21,585,027
1949	..	..	..	..	..	4,656,670	4,656,670
1950	..	..	..	..	..	219,450	219,450
1951	..	..	..	..	..	13,675,891	13,675,891
1952	..	..	..	..	..	2,126,100	2,126,100
1954	..	..	..	13,838,300	..	12,890,510	26,728,810
1955	..	..	..	..	..	5,169,400	5,169,400
1956	..	..	..	..	13,743,740	12,760,948	26,504,688
1957	..	..	..	7,000,000	..	..	7,000,000
1958	..	..	..	..	2,337,232	12,260,136	14,597,368
1960	..	..	..	..	..	12,199,602	12,199,602
1961	..	..	..	22,261,317	..	..	22,261,317
1962	..	..	..	..	..	11,606,615	11,606,615
1975	..	..	..	356,778	..	..	356,778
1976	..	..	..	29,156,494	..	..	29,156,494
Unconverted	..	..	..	..	..	12,560	12,560
Overdue	..	..	..	..	..	38,470	38,470
Indefinite	..	..	..	27	..	202,480	202,507
Annual repayments	..	..	..	79,724,221	..	..	79,724,221
Half-yearly	..	..	..	..	..	225,118	225,118
Total	..	..	..	158,363,627	16,080,972	216,400,462	390,845,061

(a) See note (c) to table on page 898.

(b) See note (a) to table on page 898.

PUBLIC DEBT FOR COMMONWEALTH PURPOSES, AT 30th JUNE, 1938.

(CLASSIFIED ACCORDING TO EARLIEST DATE OF MATURITY.)

Due Dates (year ended 30th June).				Maturing in—			Total.
				London.	New York.	Australia.	
				£ (Stg.)	£ (a)	£ (Aust.)	£ (b)
1939	..	..	..	5,654,684	..	45,119,885	50,774,569
1940	..	..	..	..	..	447,438	447,438
1941	..	..	..	6,371,806	..	902,270	7,274,076
1942	..	..	..	..	..	39,577,360	39,577,360
1943	..	..	..	..	..	4,315,990	4,315,990
1944	..	..	..	..	..	1,145,310	1,145,310
1945	..	..	..	..	..	24,263,232	24,263,232
1946	..	..	..	29,156,494	..	..	29,156,494
1948	..	..	..	..	2,337,232	21,585,027	23,922,259
1949	..	..	..	13,838,300	..	4,656,670	18,494,970
1950	..	..	..	..	..	219,450	219,450
1951	..	..	..	..	..	13,675,891	13,675,891
1952	..	..	..	..	..	2,126,100	2,126,100
1953	..	..	..	7,000,000	9,981,897	..	16,981,897
1954	..	..	..	..	..	12,890,510	12,890,510
1955	..	..	..	..	..	5,169,400	5,169,400
1956	..	..	..	16,261,317	3,761,843	12,760,948	32,784,108
1958	..	..	..	..	..	12,260,136	12,260,136
1960	..	..	..	..	..	12,199,602	12,199,602
1962	..	..	..	..	..	11,606,615	11,606,615
1965	..	..	..	356,778	..	..	356,778
Unconverted	..	..	..	..	..	12,560	12,560
Overdue	..	..	..	..	..	38,470	38,470
Indefinite	..	..	..	27	..	202,480	202,507
Annual repayments	..	..	..	79,724,221	..	..	79,724,221
Half-yearly	..	..	..	..	..	225,118	225,118
Total	..	..	..	158,363,627	16,080,972	216,400,462	390,845,061

(a) See note (c) to table on page 898.

(b) See note (a) to table on page 898.

10. **Sinking Funds.**—Particulars relating to the creation of sinking funds are included in previous issues.

The old sinking funds were merged in the National Debt Sinking Fund on 11th August, 1923. Particulars of receipts and expenditure of the Commonwealth Account from the year 1933-34 are as follows:—

PUBLIC DEBT FOR COMMONWEALTH PURPOSES.—SINKING FUND.

Items.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.	Total.
	£	£	£	£	£	£
Cr. Brought forward ..	1,959,870	881,700	1,571,603	1,780,186	1,937,295	..
Balance transferred to Fund on 11th August, 1923 ..	..	..	..	..	..	2,262,982
From Consolidated Revenue	2,927,671	3,031,774	3,244,970	3,434,219	3,681,741	39,170,268
Repayments of Sundry Loans ..	27,944	13,194	13,954	14,758	15,610	1,271,026
Purchase Money and Repayments under War Service Homes Act ..	419,320	458,211	515,896	550,158	607,435	9,290,649
Half Net Profit Commonwealth Bank ..	335,077	382,722	373,770	354,090	318,752	4,577,229
Reparation Moneys ..	649	755	623	154	147	5,573,956
Interest on Investments ..	27,836	23,781	29,202	38,797	40,478	762,957
Other Contributions ..	13,457	13,452	13,453	13,453	13,453	154,534
Total ..	5,711,824	4,805,589	5,763,471	6,185,815	6,614,911	63,063,601
 Dr. Redemptions ..	 4,830,124	 3,233,986	 3,983,285	 4,248,520	 5,362,127	 61,810,817
Carried forward ..	881,700	1,571,603	1,780,186	1,937,295	1,252,784	1,252,784
Total ..	5,711,824	4,805,589	5,763,471	6,185,815	6,614,911	63,063,601

The Imperial Government loan comes in a different category from the others since it is being liquidated by the funding arrangement described on page 895.

Information regarding the transactions of the States' Account of the National Debt Sinking Fund is published in the Finance Bulletins issued by this Bureau.

§ 5. Cost of War and Repatriation.

In view of the importance of the subject, a further reference is here made to the cost of the war. The general policy of the Commonwealth Government has been to pay from Consolidated Revenue all charges for interest, sinking fund, pensions and other recurring charges consequent upon the war, and part of the expense of repatriation.

On the other hand, the whole direct cost of the war and the larger proportion of the cost of repatriation have been paid from loans. The total cost from both sources to the 30th June, 1938, is set out in the following table:—

COST OF WAR SERVICES.

Year.	From Consolidated Revenue.			From War Loan.(b)
	War and Repatriation Services, including War Pensions.	Interest and Sinking Fund.	Total.	
	£	£	£	£
1914-15	896,190	115,145	1,011,335	14,100,000
1915-16	1,718,887	2,059,491	3,778,378	37,423,568
1916-17	2,439,271	5,988,058	8,427,329	53,114,237
1917-18	4,049,955	7,813,296	11,863,251	55,028,180
1918-19	6,536,927	14,718,174	21,255,101	59,547,080
1919-20	8,976,793	15,774,938	24,751,731	43,294,764
1920-21	13,672,345	19,613,888	33,286,233	24,148,501
1921-22	10,261,471	21,075,693	31,337,164	7,576,977
1922-23	9,298,560	20,801,912	30,100,472	1,762,694
1923-24	8,161,230	20,555,063	28,716,293	691,247
1924-25	8,232,656	20,155,426	28,388,082	Cr. 32,051
1925-26	8,473,717	20,539,123	29,012,840	Cr. 7,613
1926-27	8,814,001	20,300,101	29,114,102	23,938
1927-28	8,788,037	20,005,972	28,794,009	Cr. 23,741
1928-29	9,026,749	20,771,652	29,798,401	Cr. 12,972
1929-30	9,520,750	20,213,586	29,734,336	Cr. 2,669
1930-31	10,468,748	18,672,080	29,140,828	Cr. 2,206
1931-32	8,764,848	12,198,565	20,963,413	..
1932-33	7,928,817	11,193,150	19,121,967	..
1933-34	8,187,952	10,966,411	19,154,363	..
1934-35	8,433,372	10,584,489	19,017,861	..
1935-36	8,660,427	9,580,972	18,241,399	..
1936-37	9,101,353	9,622,600	18,723,953	..
1937-38	9,342,462	9,605,838	18,948,300	..
Discounts and Flotation Expenses on Loans	..	..	..	5,999,094
Indebtedness to the Government of the United Kingdom for payments made, services rendered, and goods supplied during the war (a) ..	..	..	..	43,398,098
War Gratuities paid in cash ..	452,295	..	452,295	27,059,688
Total to 30th June, 1938	190,207,813	342,925,623	533,133,436	373,086,814

(a) The total indebtedness to the Government of the United Kingdom involved in the Funding Arrangements Act 1921 was £92,480,157. At 30th June, 1938, the amount outstanding had been reduced to £79,724,22.

(b) Excluding expenditure on War Service Homes from 1923-24. (See page 894.)

§ 6. Old-age and Invalid Pensions.

1. **General.**—In previous issues of the Year Book an account was given of the introduction of the old-age pension system in Australia, together with a detailed description of the Commonwealth Invalid and Old-age Pensions Act 1908, which became operative on 1st July, 1909, while invalid pensions were first paid from 15th December, 1910. (See Official Year Books, Nos. 3 to 8.) The following statement shows the rates of pension under the original Act and the rates as they have been varied from time to time :—

RATES OF PENSION PAYABLE.

Date from which Operative.	Pension Payable (Annual Rate.)	Pensioner's Annual Income including pension not to exceed—
	£ s. d.	£ s. d.
1st July, 1909	26 0 0	52 0 0
12th October, 1916	32 10 0	58 10 0
1st January, 1920	39 0 0	65 0 0
13th September, 1923	45 10 0	78 0 0
8th October, 1925	52 0 0	84 10 0
23rd July, 1931	45 10 0	78 0 0
13th October, 1932	45 10 0 (a)	71 10 0
26th October, 1933	45 10 0	78 0 0
4th July, 1935	46 16 0	79 6 0
24th September, 1936	49 8 0	81 18 0
9th September, 1937	52 0 0	84 10 0

(a) Maximum amount of pension payable.

In 1916 an old-age pension of 2s. per week was first paid to pensioners who became inmates of Benevolent Asylums. This amount was increased to 3s. per week in 1923 and extended to pensioners entering hospitals. Further increments in these cases were granted in 1925 and 1928 raising the pension to 4s. and 5s. 6d. per week respectively. The amount was reduced to 5s. per week in 1931 and to 3s. 6d. per week in 1932, but was restored to 5s. per week in 1933, to 5s. 6d. per week in 1936 and to 6s. per week in 1937.

Asiatics, generally, are not eligible to receive an invalid or old-age pension, unless born in Australia, but, by an amending Act which came into operation from 7th October, 1926, pension rights were extended to Indians who were born in British India.

Invalid pensions were granted from 15th December, 1910. An applicant for an invalid pension must satisfy the Department that his or her disability is both total and permanent and became so in Australia. In 1920 special provision was made for a permanently blind person, by which the annual pension was at such a rate (not exceeding that shown in the table above) as would make his income plus that of his wife together with the pension equal to an amount not exceeding £221 per annum, or such other amount as is declared to be the basic wage of the State in which the pensioner resides. The maximum pension now payable to a blind person is £52 per annum and the limit of income is £227 10s. per annum.

The Financial Emergency Act 1932, which operated from 13th October, 1932, materially amended the conditions under which pensions were granted. The maximum rate of pension payable, viz., £45 10s. per annum, was not altered, but this rate was made to apply only to pensioners without other means. Where pensioners were in receipt of other income or were possessed of property (other than their own homes) valued at £60 or over the rates of pension were graduated. Payments to pensioner inmates of

Benevolent Asylums and Hospitals and to these institutions for pensioners' maintenance were reduced to 3s. 9d. and 11s. 3d. per week respectively. The Financial Relief Act 1933 restored from 26th October, 1933, the reductions imposed by the Financial Emergency Act 1932 and the rates and permissible income were placed on the level of those operating from July, 1931. Provision was also made for an annual review of the rate of pension, based on the cost of living index-number; the maximum rate of pension was fixed at £52 per annum and the minimum rate, £45 10s. The rate of payment to Benevolent Asylums and Hospitals for the maintenance of pensioner inmates was increased to 13s. per week from July, 1935.

In September, 1936, an amended scale of cost of living index-numbers was adopted providing for a maximum pension of not more than £52 per annum and not less than £46 16s. per annum. The rate of pension to pensioner inmates of Benevolent Asylums and Hospitals was increased to 5s. 6d. per week and the rate of payment for maintenance to 13s. 6d. per week. In September, 1937, the provision for an annual review of the rate of pension based on the cost of living index-number was repealed. At the same time the rate of pension to inmates of institutions was increased to 6s. per week and the payment for maintenance to 14s. per week.

Further explanation of pension rates and other matters incorporated in the act above referred to are given in the Invalid and Old-age Pensions Handbook issued by the Commissioner of Pensions.

2. Old-age Pensions.—(i) *Number in force.* At 30th June, 1936, there were 206,748 old-age pensions in force. During 1936-37, 26,537 pensions claims were granted, while 17,595 pensions fell in through cancellations and deaths. The net increase for the year was 8,942, and the total in existence at 30th June, 1937, 215,690.

In 1937-38, 26,522 claims were granted while 18,058 pensions fell in through cancellations and deaths, thus giving a net increase of 8,464.

(ii) *Sexes of Pensioners.* Of the pensioners at 30th June, 1938, 94,437 (or 42 per cent.) were males, and 129,717 (or 58 per cent.) were females. Details for the several States are as follows:—

OLD-AGE PENSIONS.—SEXES OF PENSIONERS, 1937-38.

State.	Males.	Females.	Total.	Masculinity. (a)
New South Wales	36,801	47,861	84,662	76.89
Victoria	25,428	39,775	65,203	63.93
Queensland	12,605	15,593	28,198	80.84
South Australia	8,470	12,943	21,413	65.44
Western Australia	7,056	8,276	15,332	85.20
Tasmania	4,077	5,269	9,346	77.38
Total	94,437	129,717	224,154	72.80

(a) Number of males to each 100 females.

(iii) *Ages and Conjugal Condition of Pensioners.* The recorded ages of the 20,537 persons, 12,592 males and 13,945 females, to whom pensions were granted during the year 1936-37 varied considerably, ranging from 5,075 at age 60 to 1 at age 97. The

conjugal condition of these new pensioners was as follows :—Males—single, 2,553 ; married, 7,804 ; and widowed, 2,235. Females—single, 1,744 ; married, 7,132 ; and widowed, 5,069.

In 1937-38, the recorded ages of persons to whom pensions were granted varied from 4,234 at age 60 to 1 at age 99. The conjugal condition of these new pensioners were :—Males, single, 2,346 ; married, 7,600 ; and widowed, 2,185. Females—single, 1,890 ; married, 7,343 ; and widowed, 5,158.

3. **Invalid Pensions.**—(i) *Number in force, 1937-38.* The number of invalid pensioners increased from 80,487 in 1935-36 to 83,396, in 1936-37 and to 86,096 in 1937-38 increases of 2,909 and 2,700 respectively. In 1937-38, 10,595 claims were allowed and 7,895 became inoperative through cancellations or deaths.

(ii) *Sexes of Pensioners.* Of the 86,096 persons in receipt of invalid pensions on 30th June, 1938, 37,085, or 43 per cent. were males, and 49,011, or 57 per cent. were females. Details for the several States are as follows :—

INVALID PENSIONS.—SEXES OF PENSIONERS, 1937-38.

State.		Males.	Females.	Total.	Masculinity. (a)
New South Wales	.. ..	17,184	23,384	40,568	73.49
Victoria	.. ..	7,994	10,823	18,817	73.86
Queensland	.. ..	5,510	6,345	11,855	86.84
South Australia	.. ..	2,643	3,983	6,626	66.36
Western Australia	.. ..	2,208	2,655	4,863	83.16
Tasmania	.. ..	1,546	1,821	3,367	84.90
Total	.. ..	37,085	49,011	86,096	75.67

(a) Number of males to each 100 females.

(iii) *Ages and Conjugal Conditions of Pensioners, 1937-38.* Whilst recorded ages of the 10,595 persons (5,151 males and 5,444 females) to whom invalid pensions were granted during 1937-38 varied from 16 to 87, 41.4 per cent. were in the 50-59 years age group.

The conjugal condition of persons to whom invalid pensions were granted during the year was as follows :—Males—single, 2,087 ; married, 2,788 ; and widowed, 276. Females—single, 2,096 ; married, 2,048 ; and widowed, 1,300.

4. **Cost of Administration.**—Under State control the cost of administration differed considerably in the several States, and for 1908-9 represented in New South Wales 4.17 per cent. of the amount actually paid in pensions. In Victoria for the same year the corresponding percentage was 0.70. The total cost to the Commonwealth of administering the Old-age and Invalid Pensions Department in 1937-38 was approximately £124,000, or about 0.78 per cent. of the amount paid to pensioners and to Benevolent Asylums and Hospitals. The corresponding cost in 1936-37 was approximately £118,851 or about 0.85 per cent. of the total payments.

The actual sum disbursed in old-age and invalid pensions in the financial year 1937-38, apart from the cost of administration and inclusive of the amount paid to asylums and hospitals for the maintenance of pensioners, was £15,798,687 (about 46s. per head) and in 1936-37, £13,998,793 (41s. per head).

5. **Summary.**—The following table gives details concerning the working of the Act for the last six years:—

OLD-AGE AND INVALID PENSIONS.—SUMMARY, AUSTRALIA.

Year ended 30th June—	Number of Pensioners.		Invalid.	Total.	Amount Paid in Pensions.	Total Payment to Pensioners and to Asylums and Hospitals for Maintenance of Pensioners.	Cost of Administration.	Cost of Administration per £100 paid to Pensioners and to Asylums and Hospitals.	Average Fortnightly Pension on last day of Financial Year.
	Old-age.								
	No.	Est. No. per 1,000 of persons eligible on age qualification. (a)							
No.	No.	£	£	£	s. d.	s. d.			
1933	176,425	325	72,742	249,167	10,643,196	10,771,061	92,305	17 2	31 10
1934	187,453	337	73,212	260,665	10,836,263	10,963,090	105,308	19 3	33 8
1935	197,126	344	76,852	273,978	11,624,769	11,762,030	110,268	18 3	33 7
1936	206,748	352	80,487	287,235	12,634,706	12,797,726	115,257	18 0	34 8
1937	215,690	361	83,396	299,086	13,827,636	13,998,793	118,851	17 0	35 8
1938	224,154	372	86,096	310,250	15,615,428	15,798,687	124,000	15 8	38 6

(a) Based on an estimate of the number of old-age pensioners per 1,000 of the aggregate of males aged 65 and over and females aged 60 and over as disclosed at the Censuses of 1921 and 1933. (b) Approximate. (c) A general increase of 1s. per fortnight occurred in July, 1935. (d) A general increase of 2s. per fortnight occurred in September, 1936. (e) A general increase of 2s. per fortnight occurred in September, 1937.

Separate particulars of the payments to Invalid and to Old-age pensioners are not available but the annual liability at 30th June, 1938, together with the total payments in 1937–38 are given hereunder:—

INVALID AND OLD-AGE PENSIONS—PAYMENTS AND ANNUAL LIABILITY.

State.		Payments Old-age and Invalid Pensions, 1937–38. (a)	Annual Liability at 30th June, 1938.		
			Old-age Pensions.	Invalid Pensions.	Total.
		£	£	£	£
New South Wales (b)	..	6,315,550	4,242,290	2,045,082	6,287,372
Victoria ..	..	4,319,617	3,264,690	952,198	4,216,888
Queensland ..	..	2,042,692	1,407,250	600,652	2,007,902
South Australia (c) ..	..	1,433,708	1,048,424	334,022	1,382,446
Western Australia ..	..	1,033,098	760,500	245,908	1,006,408
Tasmania ..	..	654,022	465,764	170,092	635,856
Total	..	15,798,687	11,188,918	4,347,954	15,536,872

(a) Including amounts paid to Benevolent Asylums and Hospitals for the maintenance of pensioners. (b) Includes Australian Capital Territory. (c) Includes Northern Territory.

§ 7. Maternity Allowance.

1. **General.**—During the session of 1912 the Federal Parliament passed an Act providing for the payment of maternity allowances. The scope and main provisions of the Act are given in Year Book No. 14, p. 1047. The most important conditions in the original Act were that the sum of five pounds was payable in the case of each confinement resulting in the birth of a viable child whether such child was born alive or dead. The mother must be a native of Australia or intend to settle permanently therein. No payment is made in the case of an aboriginal or an alien. The Financial Emergency Act 1931 reduced the allowance payable to £4 and limited the application of the original Act to those cases where the combined income of husband and wife did not exceed £200 (reduced to £208 by the Financial Emergency Act 1932) in the previous 12 months.

From 1st August, 1934, the limit of income was increased by £13 per annum in respect of each previous child of the claimant under the age of 14 years living at the date of the birth, with a maximum income limit of £299. The amount of the allowance was also increased from £4 by 5s. in respect of each such child up to a maximum of £5.

On the 21st September, 1936, the limit of income was increased from £208 to £221 with an allowance of £13 per annum in respect of each previous surviving child under 14 years of age up to a maximum income of £312. The amount of maternity allowance was also increased to £4 10s. in cases where there was no previous surviving issue under 14 years of age and £5 where there was any such issue. In respect of births occurring on and after 1st January, 1938, the income limit is £247, with an additional £13 in respect of each previous living child under 14, the maximum being £338. The amount of the allowance is £4 10s. where there is no previous living child under 14, £5 where there are one or two previous living children under 14 and £7 10s. where there are three or more such children.

The following table gives a summary in connexion with the working of the Maternity Allowance Act for the years 1934 to 1938 :—

MATERNITY ALLOWANCE.—SUMMARY.

Year.	Claims Paid.	Claims Rejected.	Amount Paid.	Cost of Administration.	Cost per £100 of allowance paid.
	No.	No.	£	£	£ s. d.
1933-34 ..	75,781	7,289	302,928	11,799	3 17 11
1934-35 ..	76,442	5,866	329,321	(a) 12,000	(a) 3 12 11
1935-36 ..	76,953	5,459	335,552	(a) 12,200	(a) 3 12 9
1936-37 ..	79,254	5,843	370,150	(a) 12,150	(a) 3 5 8
1937-38 ..	79,000	5,931	400,004	(a) 15,671	(a) 3 18 4
Aggregate— 1912-13 to 1937-38 ..	3,035,626	54,556	14,814,243	(a) 355,746	(a) 2 8 0

(a) Approximate.

2. Claims paid in each State.—The following table shows the number of maternity allowance claims paid in each State during the last five years :—

MATERNITY ALLOWANCE.—CLAIMS PAID IN EACH STATE.

Year ended 30th June.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	Total.
	No.	No.	No.	No.	No.	No.	No.	No.
1934 ..	29,960	19,499	10,780	6,783	4,951 ¹	3,788	20	75,781
1935 ..	30,354	19,940	10,940	6,409	5,035	3,725	39	76,442
1936 ..	30,463	19,672	11,640	6,613	4,850	3,689	26	76,953
1937 ..	31,086	20,350	12,170	6,954	4,731	4,018	45	79,254
1938 ..	30,440	20,760	12,600	6,656	5,026	4,029	29	79,000
Total, 1910 to 1937-38 ..	1,208,386	793,465	447,972	263,753	192,618	128,441	986	3,035,626

§ 8. Commonwealth Public Service Superannuation Fund.

This Fund, which was inaugurated on the 20th November, 1922, is maintained by contributions of officers of Parliament, of employees of the Commonwealth Public Service and the Defence Department, and by payments from the Consolidated Revenue, the latter being made when the officers retire on pension. Full particulars as to the benefits, etc., will be found in Official Year Book No. 18, page 383.

The number of contributors to the fund at 30th June, 1937, was 33,589, viz., 20,824 males and 3,765 females, and the average pension contributed for was 4.507 units or £117 3s. 8d. per annum.

During 1936-37 the receipts of the fund amounted to £607,880 of which officers' contributions represented £419,403 and interest on investments, £248,837. The payments from the fund for the year were £781,196 of which £602,801 was invested, bringing the total funds invested to £6,140,600 (at cost). The average rate of interest on investments at 30th June, 1937, was £4 0s. 3d. per cent.

Pensions in force on the 30th June, 1937, numbered 5,080, excluding commuted pensions, with a net annual liability of £535,956, of which £413,946 represented the share payable from the Consolidated Revenue Fund.

Contributions from the Commonwealth Consolidated Revenue to the fund were reduced by 20 per cent. from July, 1931 under the Financial Emergency Act 1931, and as the Government contribution in respect of any officer does not commence until he is superannuated, the reduced contribution affected all pensioners. The investments of the fund were subject to the interest reduction of approximately 22½ per cent., as provided in the above mentioned Act. The Financial Relief Act 1933 provided for the restoration of full pensions from the 21st October, 1933.

§ 9. Currency and Coinage.

1. **Australian Mints.**—Soon after the discovery of gold in Australia a branch of the Royal Mint was established in Sydney. The formal opening took place on the 14th May, 1855. The Melbourne branch was opened on the 12th June, 1872, and the Perth branch on the 20th June, 1899. The States of New South Wales, Victoria and Western Australia provided an annual endowment in return for which the mint receipts were paid into the respective State Treasuries, and it might be said until recently that, apart from expenditure on buildings, new machinery, etc., the amounts paid into the Treasuries fairly balanced the mint subsidies. Early in 1923, however, it was announced that owing to losses incurred in the operations of recent years, the British Treasury in consultation with the New South Wales Government had decided to close the Sydney branch at the end of 1923. This decision was, however, not carried out until the end of 1926.

2. **Standard Weight and Fineness of Coinage.**—In addition to coins minted at Melbourne and Perth mints, Imperial silver coins legally current in England and which were minted prior to 31st March, 1920, when the fineness was reduced from .925 to .500 are also legal tender in Australia where the fineness of silver coin is .925. The circulation of Imperial silver currency in Australia has practically ceased, as the ruling exchange rate has made it profitable to transfer to London all coins legally current there. Sovereigns coined at the Royal Mint, London, or at any of its branches throughout the Empire are legal tender in Australia. The provisions as to legal tender are—gold coins, legal tender to any amount, silver for an amount not exceeding forty shillings, and bronze up to one shilling. The standard weights of the sovereign and half-sovereign are respectively 123.27447 grains and 61.63723 grains, but these coins will pass current if they do not fall below 122.5 grains and 61.125 grains respectively. Gold coins have ceased to circulate in Australia and Commonwealth Bank Notes are legal tender to any amount.

3. **Gold Receipts and Issues.**—(i) *Receipts.* The receipts of gold during 1937 and the aggregate at each mint to the end of 1937 were as follows:—

AUSTRALIAN MINTS.—RECEIPTS OF GOLD, 1937, AND TOTAL.

Mint.	Deposits during 1937.	Total to end of 1937.		
		Quantity.		Value.
		Gross.	Fine.	
	ozs.	ozs.	ozs.	£
Sydney ..	..	(a) 42,082,928	(a) 36,907,045	(a) 156,771,141
Melbourne ..	448,999	44,070,170	39,895,899	169,466,897
Perth ..	1,204,506	39,258,767	32,006,457	135,954,698
Total ..	1,653,505	125,411,865	108,809,401	462,192,736

(a) To end of 1926.

In cases of deposits containing over a certain minimum of silver, the excess is paid for at the rate fixed from time to time by the Deputy-Master of the branch mint concerned.

(ii) *Issues.* The Australian mints, besides issuing gold coin in the shape of sovereigns and half-sovereigns, also issue gold bullion, partly for the use of local manufacturers (jewellers and dentists), and partly for export. Since September, 1931, when the United Kingdom departed from the gold standard, the minting of gold coins by Australian mints has ceased. Australian exports of gold are mainly in the form of 400-oz. ingots, but in earlier years a considerable amount of gold was shipped in 10-oz. bars to India. During recent years the export was subject to regulation by the Commonwealth Government. The issues during 1937, and the total to the end of that year, are shown in the table below:—

AUSTRALIAN MINTS.—ISSUES OF GOLD.

Mint.	Coin.			Bullion.	Total.
	Sovereigns.	Half-sovereigns.	Total.		
1937—	£	£	£	£	£
Melbourne ..	..	..	..	1,191,788	1,191,788
Perth ..	..	..	..	3,935,980	3,935,980
Total, 1937	..	..	..	5,127,768	5,127,768
Aggregate—					
Sydney ..	144,435,550	4,781,000	149,216,550	7,574,408	156,790,958
Melbourne ..	147,283,131	946,780	148,229,911	21,241,542	169,471,453
Perth ..	106,384,197	367,338	106,751,535	29,207,490	135,959,025
Total to end of 1937 ..	398,102,878	6,095,118	404,197,996	58,023,440	462,221,436

(iii) *Withdrawals of Worn Coin.* The mints receive light and worn coin for recoinage. The total withdrawals of worn gold coin to the end of 1937 were as follows:—Sydney (to 1926), £1,110,867; Melbourne, £882,304 (since and including 1890); and Perth, £1,401.

4. *Price of Gold.*—In consequence of Great Britain's departure from the gold standard on 21st September, 1931, the market value of gold immediately rose by about $17\frac{1}{2}$ per cent. from £4 4s. 11d. to £4 19s. 7d. per ounce fine. Considerable fluctuations have since taken place, and the average value of gold based on the London open market price per ounce fine adjusted to the telegraphic transfer exchange rate (Australia on London) less a small percentage for shipping charges is given in the following table in £ Sterling and £ Australian for each year from 1930 to 1937 and for each month from January, 1935 to September, 1938. Particulars are also shown for the value of the sovereign.

PRICE OF GOLD.—LONDON AND AUSTRALIA, 1930 to 1938.

Month.	London.		Australia.		Equivalent to a premium of—
	Average price per ounce, fine.	Average value of Sovereign.	Average price per ounce, fine.	Average value of Sovereign.	
Average for Year—	£s s. d.	£s s. d.	£A s. d.	£A s. d.	%
1930 ..	4 4 II	I 0 0	4 8 9	I 0 II	4.4
1931 ..	4 12 5	I I 9	5 17 6	I 7 8	38.3
1932 ..	5 18 0	I 7 9	7 5 8	I 14 4	71.5
1933 ..	6 4 II	I 0 5	7 14 2	I 16 3	81.4
1934 ..	6 17 8	I 12 5	8 9 II	2 0 0	100.0
1935 ..	7 2 I	I 13 5	8 15 5	2 I 4	106.5
1936 ..	7 0 3	I 13 0	8 13 2	2 0 9	103.8
1937 ..	7 0 9	I 13 2	8 13 9	2 0 II	104.7
Average for Month—					
1935—					
January ..	7 I 10	I 13 5	8 15 I	2 I 3	106.1
February ..	7 2 9	I 13 7	8 16 2	2 I 6	107.4
March ..	7 6 9	I 14 7	9 I I	2 2 8	113.2
April ..	7 4 3	I 13 II	8 18 I	2 I II	109.6
May ..	7 2 7	I 13 7	8 16 0	2 I 5	107.2
June ..	7 I 3	I 13 3	8 14 4	2 I I	105.2
July ..	7 0 10	I 13 2	8 13 10	2 0 II	104.6
August ..	7 0 3	I 13 0	8 13 2	2 0 9	103.8
September ..	7 I 0	I 13 2	8 14 0	2 I 0	104.8
October ..	7 I 8	I 13 4	8 14 10	2 I 2	105.8
November ..	7 I 3	I 13 3	8 14 5	2 I I	105.3
December ..	7 I I	I 13 3	8 14 2	2 I 0	105.0
1936—					
January ..	7 0 II	I 13 2	8 13 II	2 0 II	104.7
February ..	7 0 II	I 13 2	8 13 II	2 0 II	104.7
March ..	7 I 0	I 13 2	8 14 0	2 I 0	104.8
April ..	7 0 10	I 13 2	8 13 10	2 0 II	104.6
May ..	7 0 I	I 13 0	8 12 II	2 0 9	103.5
June ..	6 18 8	I 12 8	8 11 2	2 0 4	101.5
July ..	6 18 II	I 12 8	8 11 5	2 0 4	101.8
August ..	6 18 4	I 12 7	8 10 9	2 0 2	101.0
September ..	6 18 0	I 12 6	8 10 4	2 0 I	100.5
October ..	7 I II	I 13 5	8 15 2	2 I 3	106.2
November ..	7 2 3	I 13 6	8 15 7	2 I 4	106.7
December ..	7 I 8	I 13 4	8 14 II	2 I 2	105.9
1937—					
January ..	7 I 8	I 13 4	8 14 II	2 I 2	105.9
February ..	7 2 I	I 13 5	8 15 5	2 I 4	106.5
March ..	7 2 4	I 13 6	8 15 8	2 I 5	106.8
April ..	7 I 4	I 13 3	8 14 5	2 I I	105.3
May ..	7 0 7	I 13 I	8 13 7	2 0 II	104.3
June ..	7 0 7	I 13 I	8 13 6	2 0 10	104.2
July ..	7 0 0	I 13 0	8 12 10	2 0 8	103.5
August ..	6 19 6	I 12 10	8 12 3	2 0 7	102.7
September ..	7 0 4	I 13 I	8 13 3	2 0 9	103.9
October ..	7 0 6	I 13 I	8 13 5	2 0 10	104.2
November ..	7 0 2	I 13 0	8 13 0	2 0 9	103.9
December ..	6 19 9	I 12 II	8 12 7	2 0 7	102.7
1938—					
January ..	6 19 8	I 12 10	8 12 4	2 0 7	102.7
February ..	6 19 9	I 12 II	8 12 6	2 0 7	102.7
March ..	6 19 II	I 12 II	8 12 8	2 0 8	103.5
April ..	6 19 9	I 12 II	8 12 6	2 0 7	102.7
May ..	7 0 I	I 13 0	8 12 II	2 0 8	103.5
June ..	7 0 9	I 13 2	8 13 8	2 0 II	104.3
July ..	7 I 3	I 13 3	8 14 4	2 I 0	104.8
August ..	7 2 6	I 13 6	8 15 10	2 I 5	106.8
September ..	7 4 5	I 14 0	8 18 4	2 2 0	110.0

NOTE.—"£s" represents £ sterling while Australian £'s are indicated by "£A".

5. *Silver and Bronze Coinage.*—(i) *Prices of Silver.* The value of silver has greatly decreased since its demonetization and restricted coinage in almost the whole of Europe. A noticeable increase, however, took place for some years after 1915, the price of silver following the general trend of world prices. Its average price in the London market in recent years is shown in § 4 par. 5 of Chapter XVIII. "Mineral Industry."

(ii) *Profits on Coinage of Silver.* As sixty-six shillings are coined out of one pound troy of standard silver (.925 fine), the silver required to produce £3 6s. of coin cost, at the average 1936 London market price of 1s. 8. 1d. per ounce, approximately 20s. 1d. The difference nearly represents, therefore, the gross profit or seigniorage made on the coinage of every £3 6s. Negotiations for the coinage of silver and bronze coin in Australia extended over a number of years between the Imperial authorities and the Governments of New South Wales and Victoria, but no decision was arrived at. As section 51 of the Commonwealth Constitution makes legislation concerning "currency, coinage, and legal tender" a Commonwealth matter, the question remained in abeyance until 1907, when the matter was discussed at the Colonial Conference, London, with the result that in the latter part of 1908 the Commonwealth Treasurer announced his intention of initiating the coinage. Since 1916 silver and bronze coins have been minted in Australia on behalf of the Commonwealth Treasury. It is interesting to record that an issue of crowns was made in 1936-37 when coins of this denomination to the value of £200,000 were put into circulation. A further issue to the value of £50,000 was minted in 1937-38. These coins have now practically disappeared from circulation.

(iii) *Silver and Bronze Issues.* The total issues of silver and bronze coinage on account of the Commonwealth since 1910, as obtained from returns furnished by the Treasury, are set out in the following table:—

AUSTRALIAN MINTS. SILVER AND BRONZE ISSUES BY TREASURY.

Year.	Silver.						Bronze.		
	5/-.	2/-.	1/-.	6d.	3d.	Total.	1d.	½d.	Total.
	£	£	£	£	£	£	£	£	£
1910 to 1930 ..	..	3,455,000	1,773,300	854,300	817,900	6,900,500	321,563	111,715	433,278
1930-31 ..	..	192,000	45,000	..	..	237,000	..	..	..
1931-32 ..	..	257,600	19,000	7,200	5,200	289,000	11,600	6,270	17,870
1932-33 ..	..	23,400	9,200	5,200	6,600	44,400	13,470	8,140	21,610
1933-34 ..	..	81,400	29,200	23,800	24,200	158,600	21,890	7,500	29,390
1934-35 ..	..	140,400	24,200	24,000	29,800	218,400	17,390	6,770	24,160
1935-36 ..	..	167,500	34,400	16,800	19,100	239,800	13,920	5,050	31,970
1936-37 ..	200,000	208,600	13,000	47,000	39,200	507,800	17,180	6,190	23,370
1937-38 ..	50,000	365,000	93,600	59,700	65,200	633,500	26,770	7,130	33,900
Total..	250,000	4,890,900	2,040,900	1,068,000	1,037,500	9,287,300	453,783	161,765	615,548

(iv) *Withdrawals of Worn Silver Coin.*—An examination of the wear on silver coins made by the London Mint Authorities in 1900 revealed that the average life of silver coins (then .925 fine) was:—2s. pieces, 45 years; 1s., 41 years; 6d., 28 years; and 3d., 32 years. The value of worn silver coins received during 1937 was as follows:—Melbourne, nil; Perth, nil. The total withdrawals of worn silver coin to 1937 were:—Melbourne, £1,747,409; Perth, £129,738; Sydney (to 1926), £1,248,672.

6. *Australian Note Issue.*—(i) *General.* Information in some detail regarding Australian Notes has been given in earlier issues of this work. In December, 1920, the assets and liabilities of the Treasurer under the Australian Notes Act 1910-1914 were transferred to the Note Issue Department of the Commonwealth Bank and control of the Australian Note Issue was placed under the Board of Directors of this Department. Under the Commonwealth Bank Act 1924 control of the Note Issue passed to the Board of Directors of the Commonwealth Bank.

(ii) *Reserve against Note Issue.* Prior to 19th June, 1931, the reserve held in gold against the note issue was fixed at 25 per cent. of the total notes in circulation. To permit further shipments of gold to meet short-term obligations in London, an Amending Act reduced the statutory gold reserve to 15 per cent. with provision for the restoration

by graduations to 25 per cent. within a period not exceeding five years. A further Amending Act provided that portion of the note issue reserve may be held in British sterling, which was defined as follows:—(a) Balances standing to the credit of the Bank at the Bank of England or at any other of its Bankers in London; (b) Bills of Exchange or advances secured thereby which will mature in not more than three months and which are payable in the United Kingdom in currency which is legal tender therein; and (c) Treasury Bills or other securities of the United Kingdom which will mature in not more than three months.

(iii) *Notes in Circulation.* Particulars of the average notes in circulation and of the gold reserve for the years 1914 and 1933 to 1937 are given in the following table:—

COMMONWEALTH NOTE ISSUE.—PARTICULARS.

Particulars.	Average of monthly statements for year—					
	1914.	1933.	1934.	1935.	1936.	1937.
Notes held by—	£	£	£	£	£	£
Banks ..	(a)	22,685,449	21,198,854	20,119,208	18,465,121	17,194,775
Public ..	(a)	25,033,410	25,872,512	27,449,147	28,972,667	31,008,466
Total ..	11,944,848	47,718,859	47,071,366	47,568,355	47,437,788	48,203,241
Gold Reserve (b)	5,368,822	11,672,099	15,524,204	15,022,404	16,001,182	16,009,963
Percentage of Reserve on Total Issue ..	%	%	%	%	%	%
	44.9	24.5	33.0	33.5	33.7	33.2

(a) Not available. (b) Includes English sterling in 1933 and following years. (c) Average of published figures including values expressed in £'s gold, £'s sterling and £'s Australian. (d) £'s Australian.

Details of the average value of each of the several denominations of Australian Notes outstanding in 1914 and from 1933 to 1937 are given in Finance Bulletin No. 29 issued by this Bureau.

7. *Legal Tender Extant.*—Accurate information regarding the amount of token money in circulation is not available, but the following table gives an estimate of the amount of legal tender extant about the middle of the years 1933 to 1937.

ESTIMATE LEGAL TENDER EXTANT.—AUSTRALIA.

Particulars.	1933.	1934.	1935.	1936.	1937.
Australian Note Issue (a)—	£'000.	£'000.	£'000.	£'000.	£'000.
Held by Banks ..	23,346	21,284	20,202	18,253	17,537
Held by Public ..	24,207	25,017	26,848	28,792	29,502
Notes of Trading Banks outstanding (b)	181	174	169	167	167
Coin—Gold—Held by Banks (c)	61	20	23	51	62
Held by Public ..	..	..	..	..	..
Silver—Held by Banks (c)	2,047	2,007	1,932	2,099	2,325
Held by Public ..	5,289	5,482	5,761	5,943	6,160
Bronze—Held by Banks (c)	105	109	106	113	118
Held by Public ..	364	389	420	441	460
Total ..	55,600	54,482	55,461	55,859	56,331

(a) Last Monday in June.

(b) Average for June quarter.

(c) At 30th June.

The figures given above for silver coin represent the total issues of Australian silver coin less the excess of exports of Australian coins to New Zealand and the Pacific Islands over the re-imports of Australian coins. The amount of English coin in circulation in Australia is negligible, and as it is not possible to ascertain accurately its volume, no allowance has been made therefor. The figures given for bronze coins refer to the total issues of Australian coin, the small amount of British coin in circulation being disregarded.

C.—STATE FINANCE.

§ 1. General.

1. *Functions of State Governments.*—In comparing the financial returns of the States, allowance must be made for the various functions discharged by the respective Governments, and for local conditions in each case. Direct comparisons of the revenue, expenditure and debt of the individual States are difficult, owing to the fact that functions which in one State are assumed by the Central Government are in another relegated to municipal or semi-governmental bodies which are vested with certain defined borrowing powers and whose financial transactions are not included with those of the Central Government. Care, therefore, is needed in instituting comparisons, and the particulars contained in this Chapter should be read with those contained in the Chapter dealing with Local Government. In many respects, moreover, the budgets of the Australian Governments differ materially from those of most European countries, owing to the inclusion therein of the revenue and expenditure of departments concerned in rendering public services, such for instance as railways, tramways, water supply, etc., which in other countries are often left to private enterprise.

2. *Accounts of State Governments.*—The various financial transactions of the States are in each case mainly concerned with one or other of three Funds—the “Consolidated Revenue Fund,” the “Trust Fund,” and the “Loan Fund.” All revenue (except certain taxation items paid into special funds) collected by the State is placed to the credit of its Consolidated Revenue Fund, from which payments are made under the authority of an Annual Appropriation Act passed by the Legislature, or by a permanent appropriation under a Special Act. The tables relating to the Revenue and Expenditure of New South Wales and Victoria have been prepared on a different basis from that used previously, when particulars were included of certain moneys not brought into the Consolidated Revenue Fund, viz.:—Railways, Tramways, Omnibuses, Sydney Harbour Trust, Metropolitan Water Sewerage and Drainage Board, Hunter District Water Supply and Sewerage Board and Motor Taxation in the case of New South Wales; and Country Roads Board, Licensing, Police Superannuation, Assurance, Cattle Compensation, Swine Compensation, Metropolitan Roads and Milk Board Funds in the case of Victoria. Adjustments were made in respect of payments to the Railway Departments from Consolidated Revenue Fund on account of losses by the Railways on Country Development Railways in New South Wales and on account of non-paying lines and of reduced freight charges in Victoria. In this issue the figures relating to New South Wales represent the Government transactions and Business Undertakings—Railways, Tramways and Omnibuses, Sydney Harbour Trust Section of Maritime Services Board, Hunter District Water Supply and Sewerage Board, and Road Transport and Traffic Fund—included in the Annual Budget Papers. Those relating to Victoria are now restricted to the transactions of the Consolidated Revenue Fund. No adjustment has been made in respect of those transactions between the Consolidated Revenue Fund and Railways Departments referred to above, nor have alterations been made in the case of other States, the figures for which have always related to the Consolidated Revenue Fund. The Trust Fund comprises all moneys held in trust by the Government, and includes such items as savings banks funds, sinking funds, insurance companies’ deposits, etc. The Loan Fund is debited with all loan moneys raised by the State, and credited with the expenditure therefrom on public works or other purposes.

3. *Inter-relation of Commonwealth and State Finances.*—In regard to the inter-relation of Commonwealth and State Finances, a statement in some detail, covering the period from the inception of Federation to the passing of the Financial Agreement

Act 1928, was published in Official Year Book, No. 22, pages 379-80. On page 889 of this issue details are given in regard to the constitutional and other requirements in the matter of the distribution of Commonwealth revenues.

§ 2. Consolidated Revenue Funds.

Division I.—Revenue.

1. **General.**—The principal sources of State revenue are :—

- (a) Taxation; (b) The business undertakings controlled by the State Governments; (c) Sale of and rental from Crown lands; (d) Payments by Commonwealth Government under the Financial Agreement and Special Grants Acts; (e) Interest on advances; and (f) Miscellaneous sources, comprising fines, fees, etc.

Of these sources, that yielding the largest revenue for the States as a whole is the group of Business Undertakings, the principal contributor being the Government Railways and Tramways. Next in magnitude comes Taxation, followed in order by the Commonwealth Payments and Interest Receipts.

By the Finance Adjustment and Financial Adjustment (Further Provisions) Acts 1932, the receipts and payments of the Unemployment Relief and Family Endowment Funds of New South Wales were brought into the Consolidated Revenue Fund, and the division of the Consolidated Revenue Account known as the Special Purposes (Revenue) Fund was abandoned. The figures showing receipts and expenditure include the transactions relating to the Social Services referred to.

2. **Revenue Received.**—The following table furnishes particulars of the total amounts and the amounts per head, of consolidated revenue received by the several States during the last five years :—

STATE CONSOLIDATED REVENUE.

Year.	N.S.W. (a)	Victoria. (a)	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
TOTAL COLLECTIONS.							
	£	£	£	£	£	£	£
1933-34	42,570,127	24,150,366	13,859,385	10,187,986	8,481,697	2,698,214	101,947,775
1934-35	43,561,341	25,311,036	15,280,022	11,001,578	9,331,430	2,872,148	107,357,555
1935-36	46,512,208	26,038,340	15,488,991	11,499,325	10,033,721	3,117,002	112,000,187
1936-37	49,950,085	27,221,267	16,535,038	11,730,306	10,185,433	3,488,524	119,128,053
1937-38	54,345,715	27,614,982	17,339,731	12,460,936	10,819,042	3,639,755	126,220,101
PER HEAD OF POPULATION.(b)							
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1933-34	16 5 10	13 4 8	14 11 8	17 9 10	19 5 2	11 15 7	15 7 1
1934-35	16 10 9	13 15 8	15 18 1	18 16 8	21 1 2	12 10 8	16 1 10
1935-36	17 10 2	14 2 7	15 18 8	19 9 3	22 8 1	13 10 8	16 14 4
1936-37	18 12 9	14 13 11	16 16 0	19 19 1	22 10 10	15 0 6	17 10 11
1937-38	20 1 4	14 16 10	17 8 6	21 1 8	23 13 6	15 9 9	18 8 8

(a) See C. § 1 par. 2 *ante*.

(b) Based on mean population of each financial year.

3. Sources of Revenue.—(i) *General.* Classifying the revenue of the several States in the manner indicated in par. 1 *ante*, particulars for the years 1936-37 and 1937-38 are as follows:—

STATE CONSOLIDATED REVENUE.—SOURCES, 1936-37 AND 1937-38.

Particulars.	N.S.W. (a)	Victoria. (a)	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
TOTAL REVENUE.							
	£	£	£	£	£	£	£
1936-37.							
Taxation (c) ..	16,371,821	9,067,454	4,442,507	3,540,738	2,431,943	1,484,807	37,339,270
Business Under- takings ..	224,488,095	12,382,512	6,926,255	4,698,587	5,365,817	498,526	54,359,792
Territorial ..	1,791,594	373,824	1,469,709	215,484	336,418	65,935	4,322,964
Commonwealth pay- ments (b) ..	3,152,660	2,264,159	1,168,235	1,913,816	1,007,682	553,853	10,300,411
Interest ..	604,340	2,169,696	1,399,547	886,132	417,556	304,072	5,841,343
Miscellaneous ..	3,550,575	963,622	1,108,785	484,549	576,017	191,325	6,874,873
Total ..	49,959,085	27,221,267	16,535,038	11,739,306	10,185,433	3,488,524	119,128,653
1937-38.							
Taxation (c) ..	17,917,771	9,811,673	4,912,029	3,922,239	2,624,971	1,697,159	40,885,842
Business Under- takings ..	226,713,023	12,015,018	7,229,883	5,105,735	5,624,360	493,388	57,181,407
Territorial ..	1,871,754	434,512	1,543,142	216,717	374,610	66,073	4,506,808
Commonwealth pay- ments (b) ..	3,008,368	2,127,159	1,096,235	1,783,816	1,049,370	841,659	9,900,207
Interest ..	652,715	2,254,505	1,298,812	914,557	449,117	351,291	5,920,997
Miscellaneous ..	4,182,084	972,115	1,259,030	517,872	601,614	184,285	7,818,300
Total ..	54,345,715	27,614,982	17,339,731	12,460,936	10,819,042	3,639,755	126,220,161
PER HEAD OF POPULATION.(e)							
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1936-37.							
Taxation (c) ..	6 2 2	4 17 11	4 10 4	6 0 4	5 7 4	6 7 11	5 10 0
Business Under- takings ..	9 2 8	6 13 9	7 0 9	7 19 9	11 17 6	2 2 11	8 0 2
Territorial ..	0 13 5	0 4 0	1 10 3	0 7 4	0 17 1	0 5 8	0 12 9
Commonwealth pay- ments (b) ..	1 3 6	1 4 5	1 3 9	3 5 1	2 4 7	3 16 2	1 10 7
Interest ..	0 4 6	1 3 5	1 8 5	1 10 1	0 18 6	1 11 4	0 17 2
Miscellaneous ..	1 6 6	0 10 5	1 2 6	0 16 6	1 5 10	0 16 6	1 0 3
Total ..	18 12 9	14 13 11	16 16 0	19 19 1	22 10 10	15 0 6	17 10 11
1937-38.							
Taxation (c) ..	6 12 4	5 5 6	4 18 9	6 12 9	5 14 10	7 4 5	5 19 5
Business Under- takings ..	9 17 3	6 9 2	7 5 4	8 12 9	12 6 2	2 2 0	8 7 0
Territorial ..	0 13 10	0 4 8	1 11 0	0 7 4	0 16 5	0 5 8	0 13 2
Commonwealth pay- ments (b) ..	1 2 2	1 2 11	1 2 0	3 0 5	2 5 11	3 11 7	1 8 11
Interest ..	0 4 10	1 4 2	1 6 1	1 10 11	0 19 8	1 9 11	0 17 4
Miscellaneous ..	1 10 11	0 10 5	1 5 4	0 17 6	1 10 6	0 16 2	1 2 10
Total ..	20 1 4	14 16 10	17 8 6	21 1 8	23 13 6	15 9 9	18 8 8

(a) See C. §1 par. 2 *ante*.

(b) Including special grants.

(c) In some States certain taxation collections are not paid into Consolidated Revenue Fund. For total collections see next page.

(d) Includes £800,000 paid to Railways Commissioners from Consolidated Revenue in respect of losses on country developmental railways.

(e) Based on mean population of the financial year.

In connexion with the item Business Undertakings, it should be borne in mind that services performed by the Government in one State may, in another, be carried out by a Board or Trust. For instance, in New South Wales and Western Australia the tramway systems are controlled by the Government, while in the other States ownership is largely vested in Trusts or private companies. Harbour and river services and water supply and sewerage are also controlled in some cases by the State and in others by Trusts.

The magnitude of the revenue per head from Business Undertakings in the case of Western Australia is mainly due to railways, the mileage of which is greater per head of population than in other States. In New South Wales and Western Australia the revenue from tramways is also included.

(ii) *Revenue from Taxation.*—(a) *General.* Owing to different methods of treating motor taxation in the respective Treasurers' Statements of Accounts, particulars of State taxation collections have not always been directly comparable. The following table shows for the years 1936-37 and 1937-38 particulars of all State taxation collections irrespective of whether such moneys have been paid into the Consolidated Revenue Funds or not. For this reason the particulars hereunder are different from those stated in the tables relating to the Consolidated Revenue Funds, but represent a comprehensive statement of all taxation collections in each State. In this and the succeeding statements of taxation the collections have been grouped according to the nature of the tax rather than the method of collection. For example, stamp duties on betting tickets and bookmakers' licences have been included under "Racing Taxation" instead of under "Stamp Duties" and "Licences" respectively:—

STATE REVENUE FROM TAXATION—TOTAL COLLECTIONS, 1936-37 AND 1937-38.

Tax.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total, All States.
TOTAL COLLECTIONS.							
	£	£	£	£	£	£	£
1936-37.							
Probate and Succession Duties	2,081,548	1,509,693	583,741	299,775	93,320	73,165	4,641,242
Stamp Duties	1,264,646	917,255	548,732	243,372	263,030	74,189	3,311,824
Land	2,221	492,143	402,308	301,660	117,249	89,927	1,405,508
Income and Dividend ..	5,186,972	3,299,440	2,565,278	1,676,728	709,909	269,524	13,707,851
Other taxes on Income—							
Unemployment Relief ..	(a)	1,955,269	2,492,665	(a)	(a)	(a)	4,447,934
Special Income and Wages ..	6,801,889	..	..	..	..	356,188	7,158,077
Financial Emergency ..	(d)24,523	..	..	..	(e)234,599	..	259,122
Other	361,509	222,437	77,966	32,230	74,585	20,769	789,490
Liquor	..	..	77,375	..	..	639,697	471,072
Lotteries	..	..	87,142	264,985	85,207	32,416	1,308,568
Racing	484,934	353,884	761,147	639,874	(c)410,378	133,003	5,981,512
Motor	2,354,549	1,682,561	..	114,617	82,881	27,471	5,844,445
Entertainments	91,265	268,211	..	28,820	13,500	14,450	419,110
Licences, N.E.I.	72,371	90,725	134,420	8,361	29,305	..	..
Other	..	27,172	..	..	..	..	..
Total	18,726,370	10,818,800	7,730,782	3,610,431	3,085,944	1,484,808	45,457,135
1937-38.							
Probate and Succession Duties	2,237,114	1,117,057	637,007	311,882	101,931	1,734	4,398,045
Stamp Duties	1,365,519	957,170	632,129	277,813	281,117	79,193	3,593,171
Land	2,237	498,232	405,070	325,499	124,083	84,380	1,439,501
Income and Dividend ..	6,367,046	3,976,958	2,868,864	2,032,784	764,338	388,437	16,398,427
Other taxes on Income—							
Unemployment Relief ..	(a)	1,934,440	2,783,574	(a)	(a)	(a)	4,718,014
Special Income and Wages ..	6,949,283	..	..	..	..	354,683	7,303,966
Financial Emergency ..	(d)13,671	..	..	..	(e)245,660	..	259,331
Other	390,277	233,490	80,360	34,578	75,829	23,277	837,811
Liquor	..	..	87,000	..	..	642,866	509,866
Lotteries	..	..	94,508	282,175	79,950	37,384	1,309,274
Racing	400,697	414,560	818,665	672,635	(c)429,030	147,864	6,480,157
Motor	2,586,811	1,825,152	..	90,666	87,207	29,861	590,655
Entertainments	120,882	262,039	..	29,410	14,144	21,527	424,821
Licences, N.E.I.	71,615	91,521	132,894	8,030	28,954	..	..
Other	..	26,726	..	..	..	..	..
Total	20,504,582	11,646,645	8,539,471	3,998,132	3,306,804	1,697,150	49,692,793

(a) No special Unemployment Relief Tax collected. See *part. (i) Other taxes on Income* table above.

(b) Includes Income Tax on Lotteries, 1936-37, £268,187 (£1 ss. 2d. per head) and 1937-38, £257,113 (£1 ss. 7d. per head).

(c) Includes amounts collected by local government bodies outside metropolitan area, 1936-37, £185,550 (8s. 3d. per head) and 1937-38, £207,132 (8s. 3d. per head).

(d) Hospital.

Prior to Federation duties of Customs and Excise constituted the principal source of revenue from taxation. At present the most productive State taxes are the various Income Taxes, which include Unemployment Relief, Wages and Financial Emergency. Motor taxation, Probate and Succession and Stamp duties rank next in importance. In addition to these, a State land tax and licence fees of various kinds are collected in all the States, and a dividend tax is levied in Western Australia and Tasmania.

The total amounts and the amounts per head raised from all sources of taxation by the several State Governments, including amounts not paid into the Consolidated Revenue Fund, during the five years ended 1937-38 are given in the following table :—

STATE REVENUE FROM TAXATION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
TOTAL.							
	£	£	£	£	£	£	£
1933-34	14,198,932	8,461,944	5,846,301	2,925,106	1,835,829	1,132,889	34,401,001
1934-35	13,990,771	8,003,718	6,546,263	3,267,099	2,436,076	1,227,328	36,461,255
1935-36	16,289,722	9,920,693	7,323,028	3,267,389	2,762,735	1,418,256	40,981,823
1936-37	18,726,370	10,818,800	7,730,782	3,610,431	3,085,944	1,484,808	45,457,135
1937-38	20,504,582	11,646,645	8,530,471	3,998,132	3,306,804	1,697,159	49,692,793

PER HEAD OF POPULATION.(a)

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1933-34	5 8 8	4 12 9	6 3 0	5 0 5	4 3 4	4 18 11	5 3 7
1934-35	5 6 2	4 17 11	6 16 3	5 11 10	5 9 11	5 7 1	5 9 0
1935-36	6 2 8	5 7 8	7 10 8	5 11 6	6 3 5	6 3 2	6 1 8
1936-37	6 19 8	5 16 10	7 17 1	6 2 9	6 16 7	6 7 11	6 13 11
1937-38	7 11 5	6 5 2	8 11 8	6 15 4	7 4 9	7 4 5	7 5 2

(a) Based on mean population of each financial year.

(b) *Probate and Succession Duties.* Probate duties have been levied for many years in all the States, but the provisions of the Acts governing the payment of duty differ widely both in regard to the ordinary rates and those which apply to special beneficiaries. A table showing the values of the estates in which probates and letters of administration were granted is given earlier. (See Chapter XXVI. Section F.)

The duties collected for the last five financial years are as follows:—

STATE PROBATE AND SUCCESSION DUTIES.—COLLECTIONS.

State.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
New South Wales ..	1,542,475	1,693,966	1,673,805	2,081,548	2,233,144
Victoria ..	1,143,330	1,124,933	1,340,701	1,509,693	1,431,057
Queensland ..	459,314	448,901	528,412	583,741	636,207
South Australia ..	298,676	315,403	233,742	299,775	244,512
Western Australia ..	70,154	74,076	112,657	93,320	101,631
Tasmania ..	156,935	70,035	111,872	73,165	107,687
Total ..	3,670,884	3,727,374	4,001,189	4,641,242	4,754,238

(c) *Other Stamp Duties.* The revenue derived from Stamp duties (exclusive of probate and succession duties and stamp duties on betting tickets) for the last five years is shown in the accompanying table:—

OTHER STATE STAMP DUTIES.—COLLECTIONS.

State.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
New South Wales ..	1,013,604	1,084,044	1,141,305	1,264,646	1,368,919
Victoria ..	733,054	826,056	858,731	917,255	952,470
Queensland ..	446,587	501,910	545,167	548,732	632,329
South Australia ..	190,193	206,411	225,499	243,372	277,843
Western Australia ..	209,965	251,868	252,062	263,630	281,417
Tasmania ..	97,719	104,842	74,342	74,189	79,193
Total ..	2,691,122	2,975,131	3,097,106	3,311,824	3,592,171

(d) *Land Tax.* All the States impose a land tax, Queensland, the last State to fall into line, collecting its first levy in 1915-16. In the other States the impost is of long standing. In New South Wales the State land tax is levied on the unincorporated portion of the western division of the State only.

The following table shows the amounts collected by means of such taxes during the financial years 1933-34 to 1937-38:—

STATE LAND TAX.—COLLECTIONS.

State.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
New South Wales ..	2,100	2,461	2,034	2,221	2,237
Victoria ..	535,947	494,593	494,293	492,143	498,232
Queensland ..	433,881	412,459	411,598	402,308	405,070
South Australia ..	340,411	350,832	293,842	301,660	325,499
Western Australia ..	118,973	121,895	117,682	117,249	124,083
Tasmania ..	90,812	89,863	89,494	89,927	84,380
Total ..	1,528,223	1,472,103	1,408,943	1,405,508	1,439,501

(e) *Income Tax.* A tax on the incomes of persons, whether derived from personal exertion or from property, is also imposed in all the States. As might be expected, the rates, exemptions, etc., differ widely, but the general principles of the several Acts are similar. In earlier years revenues now derived from income tax were to some extent supplied by a dividend tax mainly from profits on gold mining.

The following table shows the total amounts collected in the several States during the years 1933-34 to 1937-38. In the cases of Western Australia and Tasmania the amounts of dividend duty collected are included. The tax levied on prizes in lotteries although coming within the Income Tax class has been excluded from the amounts given below.

STATE INCOME AND DIVIDEND TAXES.—COLLECTIONS.

State.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
New South Wales ..	2,808,851	3,146,495	4,088,164	5,186,972	6,367,046
Victoria ..	2,329,629	2,603,512	2,759,324	3,299,440	3,976,958
Queensland ..	1,607,499	1,800,477	2,295,004	2,565,278	2,868,864
South Australia ..	1,302,083	1,473,931	1,495,210	1,676,728	2,032,784
Western Australia ..	362,593	551,800	634,351	709,909	764,338
Tasmania ..	(a) 361,143	217,876	235,714	269,524	388,437
Total ..	8,771,798	9,794,091	11,507,767	13,707,851	16,398,427

(a) Includes Special Income and Wages taxes, not available separately prior to 1934-35.

(f) *Other taxes on Income.* During 1930-31 a special unemployment relief tax¹ was levied in New South Wales, Victoria and Queensland, but, in the case of New South Wales, this was discontinued and replaced by Special Income and Wages taxes. In South Australia portion of the moneys for expenditure on unemployment relief was raised by an increment in the rate of income tax. In Western Australia Financial Emergency and Hospital taxes are levied and in Tasmania Special Income and Wages taxes provide the funds necessary for the relief of unemployment. Further references to unemployment relief taxation may be found in the Labour Report, Nos. 22 to 27.

(g) *Motor Taxation.* Motor taxation comprises tax and registration fees on motor vehicles, and licences of motor dealers, motor drivers and motor cycle riders, and public vehicles except when controlled by local government authorities. The following table shows the collections for the last five years:—

MOTOR TAXATION.—COLLECTIONS.

State.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
New South Wales ..	1,770,828	1,934,665	2,164,068	2,354,549	2,586,811
Victoria ..	1,280,878	1,403,134	1,592,880	1,682,561	1,825,152
Queensland ..	587,421	633,059	724,119	761,147	818,665
South Australia ..	529,432	565,279	608,036	639,874	672,635
Western Australia (a) ..	292,768	318,681	342,163	410,378	429,030
Tasmania ..	101,720	110,586	123,584	133,003	147,864
Total ..	4,563,047	4,965,404	5,554,850	5,981,512	6,480,157

(a) Includes amounts collected by local governing authorities outside metropolitan area.

The proceeds of motor tax and motor registration fees are now paid into special roads funds and the amounts do not appear in the Consolidated Revenue Funds, except for the States of South Australia and Tasmania. In New South Wales a proportion of the collections is paid to Consolidated Revenue as an offset against administrative charges.

(iii) *Business Undertakings.* (a) 1936-37 and 1937-38. A very large proportion of State gross revenues is made up of receipts from business undertakings under the control of the Governments. The principal of these are railways and tramways, harbour works, water supply and sewerage and electricity supply, while, in addition, State batteries for the treatment of auriferous ores are included for Western Australia, and various minor revenue-producing services are rendered by the Governments of all States. For the year 1937-38 the revenue from these sources was £57,189,714 or 45 per cent. of the revenue from all sources. Details of revenue are as follows:—

STATE REVENUE FROM BUSINESS UNDERTAKINGS, 1936-37 AND 1937-38.

Particulars.	N.S.W.(g)	Victoria.(g)	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
	£	£	£	£	£	£	£
1936-37.							
Railways	18,616,496	(a)10,244,172	0,923,110	2,999,050	3,405,057	475,133	42,727,254
Tramways	3,927,702	(c)112,050	..	..	285,797	..	4,325,540
Harbour Services ..	1,093,091	69,041	..	632,073	287,938	..	2,082,743
Water Supply, Sewerage, Irrigation and Drainage	(h)320,814	(b)657,427	..	1,014,452	757,540	..	2,750,233
Electricity Supply ..	..	876,282	..	..	364,663	(e)10,163	1,251,108
Other	529,392	(d)423,540	3,145	52,376	201,222	13,230	1,222,905
Total	24,488,095	12,382,512	6,926,255	4,608,587	5,365,817	498,526	54,359,792
1937-38.							
Railways	20,286,116	(a)9,811,730	7,226,328	3,293,462	3,645,942	468,947	44,732,525
Tramways	4,294,723	(c)125,746	..	..	280,568	..	4,707,037
Harbour Services ..	1,186,279	72,106	..	724,223	307,704	..	2,290,372
Water Supply, Sewerage, Irrigation and Drainage	436,376	(b)665,099	..	1,028,606	794,161	..	2,857,242
Electricity Supply ..	..	875,405	..	..	387,037	(e)10,254	1,272,696
Other	576,520	(d)164,032	3,555	50,444	202,888	14,187	1,321,535
Total	26,713,002	12,015,018	7,229,883	5,105,735	5,624,300	493,388	57,181,407

(a) Includes electric tramways operated by the Railways Department. (b) Country Water Supply and Sewerage only. (c) Statutory contribution to revenue by Melbourne and Metropolitan Tramways Board. (d) Mostly interest recouped from Business Undertakings outside Consolidated Revenue Fund. (e) Profits of Hydro-electric Commission. (f) Includes Omnibuses. (g) See C. § 1 par. 2 ante. (h) Hunter District Water Supply and Sewerage Board only.

As mentioned on page 916 the particulars shown above for New South Wales are now presented on a "Budget" basis while those for Victoria now relate strictly to the transactions of the Consolidated Revenue Fund.

(b) 1933-34 to 1937-38. Particulars of the revenue from Business Undertakings for the last five years are given below:—

STATE REVENUE FROM BUSINESS UNDERTAKINGS.(a)

Particulars.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Railways and Tramways ..	40,797,636	43,646,824	45,036,042	47,052,803	49,439,562
Harbour Services ..	1,724,149	1,909,793	2,063,860	2,082,743	2,290,372
Water Supply, Sewerage, Irrigation and Drainage ..	2,372,930	2,439,454	2,007,065	2,750,233	2,857,242
Other	2,051,148	2,480,362	2,509,845	2,474,013	2,594,231
Total	47,545,863	50,476,433	52,217,412	54,359,792	57,181,407

(a) See notes to previous table.

(iv) *Territorial.* The revenue from the sale and rental of Crown lands has, with few exceptions, been treated from the earliest times as forming part of the Consolidated Revenue Funds, and has been applied to meet ordinary expenses. Where the rentals received are for lands held for pastoral or residential purposes such application of the revenue would appear justifiable. On the other hand, where the rentals are for mineral and timber lands, and in all cases of sales of lands, the proceeding is essentially a disposal of capital to defray current expenses, and is, therefore, open to criticism. The following table gives the revenue from sales and rentals of Crown lands for the years 1936-37 and 1937-38:—

STATE TERRITORIAL REVENUE, 1936-37 and 1937-38.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
	£	£	£	£	£	£	£
1936-37.							
Sales ...	80,988	68,119	..	22,374	14,085	1,517	187,083
Conditional Purchase	776,127	..	..	19,366	92,026	6,454	893,973
Rentals ..	831,000	133,040	1,166,150	173,744	124,838	27,358	2,456,808
Forestry ..	103,419	172,056	323,550	..	155,469	30,606	785,100
Total ..	1,791,594	373,824	1,489,709	215,484	386,418	65,935	4,322,964
1937-38.							
Sales ..	97,214	98,947	..	25,463	9,125	1,893	232,642
Conditional Purchase	722,434	..	..	20,180	49,763	5,537	797,914
Rentals ..	943,427	142,778	1,167,651	171,074	150,596	27,942	2,603,468
Forestry ..	108,679	192,787	375,491	..	165,126	30,701	872,784
Total ..	1,871,754	434,512	1,543,142	216,717	374,610	66,073	4,506,808

(v) *Commonwealth Payments.* The payments to the States (inclusive of special grants but excluding the contributions in respect of sinking fund on States' Debts and Federal Aid Roads grants which are paid by the Commonwealth into the National Debt Sinking Fund and Federal Aid Roads Trust Fund respectively and certain other grants paid into trust or special accounts) represent in each instance a considerable proportion of the States' revenue, and for the year 1937-38 aggregated £6,000,807, or 8 per cent. of the total revenue of the States.

(vi) *Interest and Miscellaneous.* In addition to the foregoing, there are in each State several miscellaneous sources of revenue, including such items as interest, fines, fees, etc. In 1937-38 interest, mainly from loans to local governing bodies and on public balances, was responsible for £5,020,997, whilst "Miscellaneous" revenue which includes fines of the courts and fees for services amounted to £7,818,200.

Division II.—Expenditure.

1. **General.**—The principal heads of State expenditure from Consolidated Revenue Funds are :—

- (a) Interest and sinking funds in connexion with public debt; (b) Working expenses of railways and tramways; (c) Justice; (d) Police; (e) Penal establishments; (f) Education; (g) Health and charitable expenditure; and (h) All other expenditure.

In earlier years the working expenses of Railways and Tramways were the most important item in Governmental expenditure, but in recent years Public Debt charges represent the heaviest item, notwithstanding the reduction in interest as a result of the 1931 internal conversion loan and the more recent conversion operations in London. Prior to 1930-31 Railway working expenses represented about 30 to 35 per cent. of the total, but staff reductions and other economies effected in consequence of the industrial depression reduced the figure to 26 per cent. in 1933-34. For the year 1937-38 the percentage was 26 compared with 31 per cent. represented by Public Debt Charges; next in importance were Charitable, Public Health and Hospitals, 12 per cent.; Education, 10 per cent.; and Law and Order, 5 per cent.

2. **Total Expenditure.**—The total expenditure from Consolidated Revenue Funds in the several States and the expenditure per head of population during each of the last five years are given in the table hereunder :—

STATE EXPENDITURE.—CONSOLIDATED REVENUE FUNDS.

Year.	N.S.W. (a)	Victoria. (a)	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
TOTAL.							
	£	£	£	£	£	£	£
1933-34	45,977,274	24,919,606	14,987,916	11,031,802	9,270,609	2,746,999	108,933,306
1934-35	46,011,127	25,462,233	15,844,033	10,965,352	9,498,525	2,991,349	110,773,219
1935-36	48,309,184	26,154,801	16,230,806	11,260,360	9,945,343	3,247,288	115,147,782
1936-37	49,884,775	27,192,344	16,815,228	11,600,138	10,556,638	3,443,618	119,492,741
1937-38	54,291,840	27,584,037	17,568,223	12,334,391	10,829,735	3,632,903	126,241,129

PER HEAD OF POPULATION.(b)

	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.			
1933-34	17	11	11	13	13	1	15	15	5	18	18	10	21	0	11	11	19	9	16	8	1
1934-35	17	0	4	13	17	4	16	9	10	18	15	5	21	8	8	13	1	1	16	11	3
1935-36	18	3	8	14	3	10	16	13	11	19	4	2	22	4	2	14	2	0	17	1	11
1936-37	18	12	2	14	13	8	17	1	9	19	14	4	23	7	3	14	16	7	17	12	0
1937-38	20	0	11	14	10	0	17	13	2	20	17	5	23	13	11	15	9	2	18	8	0

(a) See C. § 1, par. 2 ante.

(b) Based on mean population of each financial year.

3. Details of Expenditure for 1936-37 and 1937-38.—The following table shows the total expenditure and expenditure per head under each of the principal items:—

STATE EXPENDITURE.—DETAILS, 1936-37 AND 1937-38.

Particulars.	N.S.W. (c)	Victoria. (c)	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
TOTAL.							
	£	£	£	£	£	£	£
1936-37.							
Public debt (interest sinking fund, exchange, etc.) ..	14,305,358	8,128,456	6,441,282	4,996,983	4,071,799	1,175,487	39,119,365
Railways and Tramways (working expenses) ..	15,659,919	17,526,484	15,298,840	12,354,640	2,900,263	1,175,487	34,358,194
Water Supply, Sewerage, Irrigation and Drainage ..	107,860	359,729	..	311,736	281,847	..	1,061,181
Justice ..	554,446	249,957	187,006	62,684	82,458	45,680	1,182,231
Police ..	1,569,202	793,833	535,488	273,108	238,708	114,219	3,524,558
Penal establishments ..	327,734	120,806	36,720	42,193	32,678	20,191	580,412
Education ..	4,479,492	2,975,610	1,629,477	957,050	821,546	347,792	11,210,976
Health and charitable ..	7,338,498	3,331,301	1,107,721	1,029,790	(e) 484,587	448,583	13,740,570
All other expenditure	5,542,257	3,705,979	1,578,694	1,571,954	1,642,752	673,618	14,715,254
Total ..	49,884,775	27,192,344	16,815,228	11,600,138	10,556,638	3,443,618	119,492,741
1937-38.							
Public debt (interest sinking fund, exchange, etc.) ..	14,242,108	8,114,280	6,566,081	5,090,705	4,244,867	1,218,776	39,476,817
Railways and Tramways (working expenses) ..	17,475,487	17,430,586	15,713,973	12,621,221	2,885,061	1,175,487	36,807,891
Water Supply, Sewerage, Irrigation and Drainage ..	123,451	360,623	..	332,054	283,333	..	1,099,461
Justice ..	606,647	261,057	209,418	66,194	87,837	43,183	1,274,330
Police ..	1,669,555	816,964	559,971	289,060	242,759	132,010	3,710,319
Penal establishments ..	359,093	122,340	39,378	49,167	31,723	21,296	622,997
Education ..	5,122,894	3,092,787	1,712,152	1,015,045	837,053	373,722	12,153,593
Health and charitable ..	8,505,818	3,549,134	1,107,088	1,017,772	(e) 513,070	160,332	15,751,112
All other expenditure	6,186,853	3,856,268	1,659,262	1,853,173	1,704,032	702,021	15,911,609
Total ..	54,291,840	27,584,037	17,568,223	12,334,391	10,829,735	3,632,903	126,241,129

(a) Includes electric tramways operated by the Victorian Railways.

(b) Railways only.

(c) See C. § 1, par. ante. (d) Includes Omnibuses; also £800,000 paid from Consolidated Revenue Fund on account of losses on country developmental railways. (e) In addition £28,538, 1936-37 and £256,800, 1937-38, was expended from Hospital Fund.

STATE EXPENDITURE.—DETAILS, 1936-37 AND 1937-38.—*continued.*

Particulars.	N.S.W. (a)	Victoria. (a)	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
PER HEAD OF POPULATION.(b)							
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1936-37.							
Public debt (interest sinking fund, etc.)	5 6 8	4 7 9	6 10 11	8 9 10	9 0 2	5 1 3	5 15 3
Railways and Tramways (working expenses) ..	5 16 10	4 1 3	5 7 8	4 0 1	6 8 4	2 13 3	5 1 2
Water Supply, Sewerage, Irrigation and Drainage ..	0 0 10	0 3 11	..	0 10 7	0 12 6	..	0 3 2
Justice ..	0 4 2	0 2 8	0 3 10	0 2 2	0 3 8	0 3 11	0 3 6
Police ..	0 11 9	0 8 7	0 10 11	0 9 4	0 10 7	0 9 10	0 10 5
Penal establishments	0 2 5	0 1 4	0 0 8	0 1 5	0 1 5	0 1 9	0 1 9
Education ..	1 13 5	1 12 2	1 13 1	1 12 6	1 16 4	1 9 11	1 13 0
Health and charitable	2 14 9	1 16 0	1 2 7	1 15 0	1 1 6	1 18 8	2 0 6
All other expenditure	2 1 4	2 0 0	1 12 1	2 13 5	3 12 9	2 18 0	2 3 3
Total ..	18 12 2	14 13 8	17 1 9	19 14 4	23 7 3	14 16 7	17 12 0
1937-38.							
Public debt (interest sinking fund, etc.)	5 5 3	4 7 3	6 12 0	8 12 3	9 5 9	5 3 8	5 15 4
Railways and Tramways (working expenses) ..	6 9 1	3 19 10	5 14 10	4 8 9	6 6 3	2 18 0	5 7 6
Water Supply, Sewerage, Irrigation and Drainage ..	0 0 11	0 3 10	..	0 11 3	0 12 5	..	0 3 2
Justice ..	0 4 3	0 2 10	0 4 3	0 2 3	0 3 10	0 3 8	0 3 9
Police ..	0 12 4	0 8 9	0 11 3	0 9 10	0 10 7	0 11 3	0 10 10
Penal establishments	0 2 8	0 1 4	0 0 10	0 1 8	0 1 5	0 1 10	0 1 10
Education ..	1 17 10	1 13 3	1 14 5	1 14 4	1 16 8	1 11 10	1 15 0
Health and charitable	3 2 10	1 18 2	1 2 3	1 14 5	1 2 5	1 19 2	2 4 3
All other expenditure	2 5 9	2 1 3	1 13 4	3 2 8	3 14 7	2 19 9	2 6 7
Total ..	20 0 11	14 16 6	17 13 2	20 17 5	23 13 11	15 9 2	18 8 9

(a) See C. § 1, par. 2 ante.

(b) Based on mean population of the financial year.

Division III.—Surplus Revenue.

The following table shows for each of the years 1933-34 to 1937-38 the amount and amount per head of the surplus or deficit of each State :—

STATE SURPLUS REVENUE.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
	£	£	£	£	£	£	£
1933-34..	—3,407,147	—760,240	—1,128,531	—843,816	—788,912	—47,885	—6,985,531
1934-35..	—2,449,786	—151,197	—564,611	36,226	—167,095	—119,201	—3,415,664
1935-36..	—1,706,976	—116,461	—741,815	148,065	88,378	—129,686	—2,547,595
1936-37..	74,310	28,023	—280,190	139,168	—371,205	44,906	—364,088
1937-38..	53,875	30,945	—228,492	126,545	—10,693	6,852	—20,068
PER HEAD OF POPULATION.(a)							
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1933-34..	—1 6 1	—0 8 5	—1 3 9	—1 9 0	—1 15 10	—0 4 2	—1 1 0
1934-35..	—0 18 7	—0 1 8	—0 11 9	0 1 3	—0 7 6	—0 10 5	—0 10 3
1935-36..	—0 13 6	—0 1 3	—0 15 3	0 5 1	—0 3 11	—0 11 3	—0 7 7
1936-37..	0 0 7	0 0 4	—0 5 9	0 4 9	—0 16 5	0 3 10	—0 1 1
1937-38..	0 0 4	0 0 4	—0 4 7	0 4 3	—0 0 6	0 0 7	—0 0 1

NOTE.—Minus sign (—) indicates deficit.

(a) Based on mean population of each financial year.

§ 3. State Trust Funds.

1. **Nature.**—In addition to the moneys received as revenue and paid to the credit of Consolidated Revenue Funds, considerable sums are held by the State Governments in trust for various purposes. Municipal sinking funds placed in the hands of the Governments are paid to the credit of the appropriate Trust Fund. In all the States except New South Wales, where the practice is confined to those companies transacting workers' compensation insurance, life assurance companies operating are required to deposit a substantial sum in cash or approved securities with the Government, and these deposits help to swell the trust funds. Various other deposit accounts, superannuation funds, suspense accounts, etc., also find a place.

2. **Extent.**—The amounts of trust funds held on the 30th June, 1937 and 1938, were as follows :—

STATE TRUST FUNDS, 30th JUNE, 1937 and 1938.

At 30th June.	N.S.W. (a)	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
	£	£	£	£	£	£	£
1937 ..	14,401,234	7,360,642	2,856,897	2,033,158	3,554,020	831,623	31,037,574
1938 ..	15,078,685	8,640,477	3,328,087	1,790,503	4,097,313	697,051	33,632,116

(a) Includes Colonial Treasurer's Supreme Court Accounts.

§ 4. State Loan Funds.

Division I.—Loan Expenditure.

1. **General.**—As far back as the year 1842 revenue collections were supplemented with borrowed moneys, the earliest loan being by New South Wales for the purpose of assisting immigration, at rates of interest varying from 2½d. to 5¼d. per £100 per diem, or approximately from 4½ per cent. to 8 per cent. per annum. Australian public borrowing, however, is mainly due to the fact that the State Governments, in addition to ordinary administrative duties, undertake functions which in other countries are usually entrusted to local authorities or left to private enterprise. Foremost amongst these are the construction and control of the railway systems, but loan moneys have been largely used for improvements to harbours and rivers, and for the construction of roads, water supply and sewerage works. The State loan expenditure and public debt thus differ very materially from those of most European countries, and from those of the Commonwealth, where such expenditure was very largely incurred for purposes of defence, or in the prosecution of war. As shown above, the State debts consist chiefly of moneys raised and expended with the object of assisting the development of the resources of the country, and are to a very large extent represented by tangible assets.

Statements relating to Loan Expenditure are given below for both "gross" and the "net" expenditure. The gross expenditure represents the amounts disbursed during each year whereas the net expenditure represents the gross expenditure less any credits to the Loan Fund during the year on account of repayments of advances to local governing bodies, settlers, etc. It might be mentioned that such moneys are credited to the Loan Fund in the year of repayment irrespective of when the advance was made.

The four detailed tables following relating to Gross and Net Loan Expenditure during the years 1936-37 and 1937-38 are presented in a different form from that hitherto employed. Particulars of Expenditure on other than Works, etc., have now been excluded, but a summary table, giving particulars of the total loan expenditure during each of the years 1933-34 to 1937-38 has been added to this section.

2. **Loan Expenditure, 1936-37 and 1937-38.**—(a) *Gross Loan Expenditure, 1936-37 and 1937-38.* Particulars of the gross loan expenditure on Works, Services, etc. for the years 1936-37 and 1937-38 are given in the following table :—

STATE GROSS LOAN EXPENDITURE ON WORKS, SERVICES, ETC., 1936-37 and 1937-38.

Heads of Expenditure.(f)	New South Wales.(d)	Victoria.(a)	Queensland.	South Australia.	Western Australia.(d)	Tasmania.	Total.
	£	£	£	£	£	£	£
1936-37.							
Public Works and Services—							
Railways	2,219,999	361,893	524,465	175,603	50,332	659,662	3,001,951
Tramways	(g) 286,836	..	..	100,000	35,591	..	422,427
Roads	772,925	76,622	238,120	196,000	..	..	1,383,667
Bridges	242,065	..	112,170	129,829	47,591	74,919	586,574
Harbours and Rivers ..	..	..	..	..	..	..	..
Lights and Lighthouses ..	..	..	..	..	..	..	..
Water Supply	695,431	(c) 360,792	..	272,705	25,252	..	1,501,500
Sewerage	92,572	..	..	82,271	64,765	..	239,608
Electricity Supply	667,958	93,462	393,413	106,890	23,360	571,238	1,528,934
Public Buildings	..	..	..	..	83,700	183,211	266,911
Loans and Grants to Local Bodies	175,230	..	1,206,512	..	..	7,001	1,388,743
Unemployment Relief ..	1,143,577	1,036,018	..	..	1,555,541	..	3,735,136
Advances for Housing ..	35,000	28,957	314,765	46,496	55,448	38,976	519,642
Other Public Works	860	..	..	112,370	2,098	46,036	161,364
Primary Production—							
Soldier Settlement	(e) 70	85,503	4,866	26,112	131	161,855	238,419
Land for Settlement	..	167,236	199,486	20,935	18,009	34,229	408,985
Advances to Settlers	..	71,018	..	609,502	..	127,074	807,594
Water Conservation	477,577	..	194,689	119,485	65,737	..	857,488
Irrigation and Drainage ..	..	..	..	22,879	13,390	..	36,269
Rabbit-proof Fencing	..	19,585	24,073	2,776	..	..	46,434
Agriculture	64,234	..	129,119	..	16,214	..	209,567
Agricultural Bank	..	..	169,963	..	..	..	169,963
Forestry	..	51,425	87,756	157,372	..	..	396,553
Mines and Mineral Resources	..	..	33,217	..	30,026	..	63,243
Other	..	350,000	37,505	785,187	67,371	..	1,240,063
Other Purposes	8,189	..	..	6	40	..	8,235
Total Public Works, Services, &c., Expenditure ..	7,182,523	3,303,501	3,760,113	2,966,499	2,155,199	1,907,930	21,365,765
Per Head of Population ..	£2 13 7	£1 15 8	£3 16 5	£5 0 10	£4 15 5	£8 12 1	£3 2 11
1937-38.							
Public Works and Services—							
Railways	2,575,000	492,208	650,281	150,779	309,149	478,926	4,056,343
Tramways	(g) 304,400	..	..	(b) 150,000	88,511	..	542,911
Roads	818,880	57,972	265,814	202,500	..	..	1,365,166
Bridges	761,671	1,207	67,945	103,191	39,075	66,829	2,385,084
Harbours and Rivers ..	..	..	..	..	..	..	..
Lights and Lighthouses ..	..	..	..	..	..	..	..
Water Supply	974,355	(c) 353,606	..	331,092	206,338	..	2,017,984
Sewerage	195,518	..	..	87,996	64,597	..	348,111
Electricity Supply	1,199,444	172,758	306,417	148,506	39,977	422,204	2,068,308
Public Buildings	..	..	..	..	..	..	..
Loans and Grants to Local Bodies	583,881	..	1,337,245	..	..	2,006	1,923,132
Unemployment Relief ..	..	1,566,870	..	..	1,047,583	90,866	2,705,320
Advances for Housing ..	35,000	490,130	208,074	127,914	10,000	78,192	949,310
Other Public Works	..	..	..	83,920	3,328	68,317	155,565
Primary Production—							
Soldier Settlement	(e) 10,000	1,275	4,248	23,757	87	176,671	185,953
Land for Settlement	..	26,835	180,639	41,113	15,062	49,334	250,993
Advances to Settlers	..	11,242	..	532,680	..	218,112	762,034
Water Conservation	620,956	..	87,250	106,828	9,459	..	815,908
Irrigation and Drainage ..	..	..	..	17,429	9,986	..	27,415
Rabbit-proof Fencing	..	14,235	19,977	5,579	..	..	39,791
Agriculture	27,845	..	..	..	13,378	..	41,223
Agricultural Bank	..	..	213,000	..	..	..	213,000
Forestry	..	42,093	99,380	169,681	..	..	311,154
Mines and Mineral Resources	..	..	27,294	..	35,247	..	62,541
Other	..	..	53,893	829	62,493	..	117,215
Other Purposes	3,789	..	..	555,000	248,946	..	807,735
Total Public Works, Services, &c., Expenditure ..	8,110,740	3,320,451	3,521,487	2,839,184	2,294,942	1,892,279	21,889,083
Per Head of Population ..	£2 19 11	£1 11 9	£3 10 10	£4 10 1	£5 0 5	£8 1 1	£3 3 11

(a) Expenditure from Loan and on account of Loan; includes expenditure from Public Account Advances Account, from Treasurer's Advance Account, and from State Loans Repayment Fund. (b) Loans to Local Bodies for Tramways. (c) Country Towns. (d) Includes expenditure from Loan Suspense Account. (e) Includes rabbit-proof fencing advances. (f) The reclassification of several items for 1937-38 has rendered the figures concerned not entirely comparable with those of previous years. (g) Includes Omnibuses.

(b) *Net Loan Expenditure, 1936-37 and 1937-38.* For the years ended 30th June, 1937 and 1938 State net loan expenditure on Works, Services, etc., was as follows:—

STATE NET LOAN EXPENDITURE ON WORKS, SERVICES, ETC., 1936-37 and 1937-38.

Heads of Expenditure.(g)	New South Wales.(d)	Victoria.(a)	Queensland.	South Australia.(f)	Western Australia.(h)	Tasmania.	Total.
	£	£	£	£	£	£	£
1936-37.							
Public Works and Services—							
Railways ..	1,864,088	329,567	505,216	160,011	46,862	81,856	2,987,600
Tramways ..	(h) 275,195	..	..	(b) 65,753	35,591	..	376,539
Roads ..	669,704	Cr. 47,144	202,552	196,000	Cr. 2,163	..	1,529,597
Bridges ..	..	Cr. 5,337	..	..	..	..	..
Harbours and Rivers ..	166,713	Cr. 1,807	111,151	Cr. 37,110	37,030	72,759	1,529,597
Lights and Lighthouses ..	..	..	..	..	16,442	..	..
Water Supply ..	524,381	(c) 346,245	..	244,975	42,593	..	1,233,963
Sewerage ..	..	Cr. 1,040	..	60,387	..	..	..
Electricity Supply ..	89,431	..	..	..	23,310	526,156	638,903
Public Buildings ..	666,315	92,453	381,445	105,968	83,643	181,104	1,510,928
Loans and Grants to Local Bodies ..	175,230	Cr. 4,091	888,682	Cr. 3,535	Cr. 755	Cr. 109,586	945,945
Unemployment Relief ..	..	..	..	..	..	..	..
Works ..	1,404,903	1,605,282	..	..	1,555,541	81,063	4,646,789
Advances for Housing ..	35,000	28,957	8,905	Cr. 95,716	52,572	14,097	43,815
Other ..	Cr. 15,362	..	..	21,281	2,098	36,167	44,184
Primary Production—							
Soldier Settlement ..	Cr. ..	Cr. 101,688	Cr. 42,942	Cr. 67,561	Cr. 45,713	Cr. 114,868	Cr. ..
Land for Settlement ..	..	Cr. 42,196	151,276	Cr. 5,165	15,642	9,988	251,979
Advances to Settlers ..	..	Cr. 54,951	..	Cr. 363,866	..	36,215	Cr. 382,602
Water Conservation ..	..	..	174,611	Cr. 81,801	65,467	..	700,544
Irrigation and Drainage ..	425,974	..	..	Cr. 350	13,041	..	..
Rabbit-proof Fencing ..	..	Cr. 7,539	785	Cr. 5,380	..	..	Cr. 12,134
Agriculture ..	61,286	..	115,087	..	13,721	..	190,094
Agricultural Bank ..	..	..	Cr. 44,779	..	..	..	Cr. 44,779
Forestry ..	..	51,425	79,704	51,153	..	..	182,282
Mines and Mineral Resources ..	..	8,459	26,104	..	22,876	..	40,291
Other ..	..	350,000	37,505	770,167	..	..	1,157,672
Other Purposes ..	2,200	Cr. 7,215	Cr. 21,709	Cr. 6,634	54,414	..	21,056
Total Public Works, Services, &c., Expenditure ..	6,336,078	2,616,666	2,573,593	1,245,222	2,032,224	814,951	15,618,728
Per Head of Population ..	£2 7 3	£1 8 3	£2 12 4	£2 2 4	£4 9 11	£3 10 2	£2 6 0
1937-38.							
Public Works and Services—							
Railways ..	2,313,155	481,105	630,053	112,537	306,128	50,000	3,935,033
Tramways ..	Cr. 1,265,198	..	..	(b) 111,998	88,511	..	Cr. 1,465,707
Roads ..	716,051	Cr. 28,419	228,304	152,500	Cr. 263	..	1,800,113
Bridges ..	674,271	Cr. 21,055	66,573	..	..	40,930	..
Harbours and Rivers ..	..	..	..	37,618	37,684	..	..
Lights and Lighthouses ..	..	..	..	300,414	193,533	..	..
Water Supply ..	Cr. ..	(c) 336,942	..	61,793	42,284	..	..
Sewerage ..	259,730	Cr. 1,087	..	..	39,977	391,974	622,254
Electricity Supply ..	190,303	..	280,680	76,333	91,678	235,860	2,053,835
Public Buildings ..	1,196,433	171,911	..	..	..	..	..
Loans and Grants to Local Bodies ..	574,481	Cr. 3,797	916,693	Cr. 6,417	Cr. 916	Cr. 37,278	1,442,766
Unemployment Relief ..	..	..	..	..	..	..	..
Works ..	Cr. 374,465	1,508,885	..	..	1,047,583	37,066	2,919,069
Advances for Housing ..	Cr. 75,000	490,130	Cr. 123,690	Cr. 52,665	7,105	45,599	201,479
Other ..	Cr. 84,047	..	..	67,516	3,328	44,361	31,158
Primary Production—							
Soldier Settlement ..	..	Cr. 312,704	Cr. 48,714	Cr. 58,807	Cr. 71,636	Cr. 702	Cr. 504,842
Land for Settlement ..	..	Cr. 257,001	1,102	12,010	1,319	13,107	..
Advances to Settlers ..	..	Cr. 11,811	..	Cr. 30,110	..	..	..
Water Conservation ..	..	..	62,724	..	104,866	9,181	743,535
Irrigation and Drainage ..	557,177	..	..	Cr. 288	9,872	..	..
Rabbit-proof Fencing ..	..	Cr. 13,929	Cr. 622	7,228	..	..	Cr. 21,779
Agriculture ..	Cr. 104,678	..	Cr. 53,271	..	10,982	..	Cr. 146,967
Agricultural Bank ..	..	..	Cr. 13,398	..	..	..	Cr. 13,398
Forestry ..	..	42,093	94,934	58,051	..	..	195,078
Mines and Mineral Resources ..	..	8,797	22,493	..	32,558	..	46,253
Other ..	..	..	30,251	Cr. 2,496	62,493	..	90,248
Other Purposes ..	1,787	Cr. 5,622	..	459,434	237,870	..	693,477
Total Public Works, Services, &c., Expenditure ..	5,100,865	2,345,166	2,271,931	1,133,054	2,106,180	880,138	14,145,005
Per Head of Population ..	£1 17 8	£1 5 3	£2 4 0	£1 15 1	£1 11 7	£3 12 1	£2 0 1

(a) Expenditure from Loan and on account of Loan: includes expenditure from Public Account Advances Account, from Treasurer's Advance Account, and from State Loans Repayment Fund. (b) Loans to Local Bodies for Tramways. (c) Country towns. (d) Includes expenditure from Loan Suspense Account. (e) Includes Rabbit-proof Fencing advances. (f) Credits arising from the cancellation of securities redeemed from Sinking Fund not allowed for. (g) See Note (f) to previous table. (h) Includes Omnibuses.

3. Net Loan Expenditure on Works, Services, etc. 1933-34 to 1937-38.—The following table gives the works net loan expenditure during each of the years 1933-34 to 1937-38 :—

STATE NET LOAN EXPENDITURE ON WORKS, SERVICES, ETC.

Year.	N.S.W.	Victoria.(f)	Q'land.(a)	S. Aust.(c)	W. Aust.(e)	Tasmania.	All States.
TOTAL.							
	£	£	£	£	£	£	£
1933-34	7,004,478	2,190,550	1,717,182	947,784	2,648,501	118,783	14,627,278
1934-35	9,724,762	1,786,860	3,169,072	495,479	2,538,213	361,495	18,539,881
1935-36	67,978,820	3,115,982	3,006,370	1,632,400	2,451,707	660,876	18,846,155
1936-37	6,336,078	2,616,660	2,573,593	1,245,222	2,032,224	814,951	15,618,728
1937-38	5,100,865	2,345,460	2,224,934	1,133,054	2,160,480	850,305	13,815,098

PER HEAD OF POPULATION.

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1933-34	2 13 7	1 4 0	1 16 1	1 12 6	6 0 3	0 10 4	2 4 1
1934-35	3 13 10	0 19 6	3 5 11	1 12 10	5 14 6	1 11 7	2 15 5
1935-36	3 0 1	1 13 10	3 1 10	2 15 8	5 9 6	2 17 4	2 15 11
1936-37	2 7 3	1 8 3	2 12 4	2 2 4	4 9 11	3 10 2	2 6 0
1937-38	1 17 8	1 5 3	2 4 9	1 18 4	4 14 7	3 12 4	2 0 4

(a) Figures for each year are exclusive of £100,000 portion of repayments transferred to Consolidated Revenue and applied to Sinking Fund contributions. For the year 1931-32 repayments exclude £208,305 transferred from Government Savings Bank Inscribed Stock Account. (b) Credits on accounts of amounts written off indebtedness in respect of Soldier Land Settlement advances (£634,752) and transfers from Special Deposits account (£321,000) not allowed for. (c) Credits arising from the cancellation of securities redeemed from Sinking Fund not allowed for. (d) Amounts of £804,988 written off Public Debt and £88,782 adjustment of interest pursuant to Soldier Settlement Agreement not allowed for. (e) Figures previously published have been adjusted on account of Loan Suspense Expenditure, which is now included in the figures for the year the expenditure was made. (f) Expenditure from that account was included in the year it was charged to Loan Account. (f) Expenditure from Loan and on account of Loan. See Note (a) to previous table.

The loan expenditure per head of population, which varies in the different States and in different years, reached its highest point for the five years under review in 1935-36 with £2 15s. 11d. per head, and its lowest in 1937-38 with £2 os. 4d. per head.

4. Total Net Loan Expenditure to 30th June, 1938.—The total net loan expenditure inclusive of revenue deficits, etc., of the States from the initiation of borrowing to the 30th June, 1938, amounted to £69,592,348. The purposes for which this sum was expended are shown in the following table :—

TOTAL STATE NET LOAN EXPENDITURE TO 30th JUNE, 1938.

Heads of Expenditure.	New South Wales.	Victoria.(k)	Queens-land.	South Australia.	Western Australia.	Tasmania.	Total.
	£	£	£	£	£	£	£
Public Works and Services.							
Railways ..	149,507,395	75,634,178	64,607,253	34,497,721	25,289,007	7,272,441	356,807,095
Tramways ..	(j) 9,192,146	..	..	(b) 3,648,946	1,231,655	..	14,072,747
Roads and Bridges ..	17,945,333	12,373,057	4,069,298	3,568,245	2,790,935	..	..
Harbours, Rivers, Lighthouses ..	21,380,918	1,404,835	2,732,287	8,177,265	7,244,070	7,006,334	88,691,436
Water Supply ..	..	29,823,847	..	14,893,164	9,419,329	..	..
Sewerage ..	41,353,179	(d) 17,784	..	3,402,553	3,510,703	..	102,626,559
Electricity Supply ..	1,587,086	17,839,227	..	..	1,823,052	5,723,772	26,973,137
Public Buildings ..	15,769,926	6,683,267	5,621,571	3,736,736	2,088,111	2,220,613	36,072,304
Loans to Local Bodies (h)	749,711	1,827,664	17,530,853	36,519	90,138	698,468	20,933,353
Unemployment Relief ..	16,227,715	9,559,682	..	..	..	299,442	26,086,830
Advances—Housing ..	961,314	520,000	4,199,630	5,509,092	786,492	228,162	12,307,720
Commonwealth Services ..	3,965,937	149,323	524,388	1,283,387	332,293	500,754	6,756,082
Other Public Works and Services ..	(c) 1,820,999	763,427	..	792,263	1,332,426	1,398,076	6,107,191
Primary Production—							
Closer Settlement ..	8,300,074	13,460,059	..	1,610,322	8,497,610	428,172	..
Land for Settlement ..	..	..	3,261,610	..	321,662	..	7,118,646
Soldier Settlement ..	3,958,932	28,094,095	1,298,378	8,576,928	7,100,413	2,504,391	..
Advances to Settlers ..	..	..	..	2,638,054	2,061,602	367,207	7,311,488
Water Conservation ..	..	..	..	4,151,242	1,221,101	..	..
Irrigation and Drainage ..	15,748,376	..	2,478,747	4,804,327	1,729,692	..	30,113,185
Rabbit Proof Fencing ..	(f)	545,012	334,423	227,753	311,765	..	1,711,653
Agricultural Bank ..	..	..	1,617,330	..	5,878,695	..	7,499,025
Agriculture ..	(g) 7,137,034	150,682	100,024	..	3,488,833	..	10,885,573
Mines and Mineral Resources ..	580,705	520,421	1,991,091	..	2,747,678	..	5,830,805
Forestry ..	..	735,969	903,228	1,043,519	763,017	..	3,446,633
Other ..	..	1,412,262	3,892,750	782,668	62,493	..	6,150,173
Other Purposes ..	1,952,600	132,540	2,763,071	(i) 3,804,715	3,807,162	335,971	12,799,149
Total Public Works, Services, &c., Expenditure ..	318,082,600	204,396,593	117,837,932	107,355,419	93,963,033	29,003,803	870,639,380
Other than Works, &c.—							
Exchange on Remittances ..	..	..	..	..	..	..	..
Discounts and Flotation Expenses ..	17,436,117	5,663,219	..	1,125,872	4,030,933	(g)	28,256,141
Revenue and General Cash Deficits ..	35,535,634	4,923,682	5,806,271	8,608,502	11,750,132	835,366	66,030,677
Treasury Bills Refined ..	..	..	2,857,150	..	..	..	2,857,150
Other ..	..	..	900,000	..	..	..	900,000
Grand Total ..	375,354,351	214,143,494	127,421,353	117,089,883	109,741,098	29,839,169	969,592,348

(a) Includes Grain Elevators. (b) Loans to Local Bodies for Tramways. (c) Includes Industrial Undertakings. (d) Country sewerage. (e) Includes Advances for Rabbit Proof Fencing. (f) Included with Soldier Settlement, &c. (g) Included with Other Public Works. (h) Includes Grants. (i) Includes State Bank. (j) Includes Omnibuses. (k) Aggregate Gross Loan Expenditure.

The figures in the above table show the amounts actually spent, and differ from those given later in the statements relating to the public debt, which represent the amount of loans still unpaid. The statement above includes all expenditure, whether the loans have been repaid or are still in existence. In the public debt statement, however, loans repaid are not included, and in the case of loans still outstanding, each is shown according to the amount repayable at maturity, and not according to the amount originally available for expenditure.

5. **Total Loan Expenditure, 1933-34 to 1937-38.**—The following table gives particulars, in summary form, of the total loan expenditure in each State during each of the years 1933-34 to 1937-38:—

STATE LOAN EXPENDITURE, SUMMARY, 1933-34 TO 1937-38.

Particulars.	New South Wales.	Victoria.	Queens- land.	South Australia.	Western Australia.	Tasmania.	Total.
	£	£	£	£	£	£	£
1933-34.							
Works and Services—							
Gross Expenditure (a) ..	7,798,094	2,808,738	3,173,229	1,993,000	2,749,436	524,987	19,047,484
Net Expenditure (b) ..	7,004,478	2,190,559	1,717,182	947,784	2,648,501	118,783	14,627,278
Repayments (b) ..	793,616	618,188	1,456,047	1,045,216	100,935	406,204	4,420,206
Other than Works—(c)							
Gross Expenditure ..	4,760,043	526,093	1,228,531	1,287,475	925,473	..	8,727,615
Net Expenditure ..	4,760,043	526,093	1,228,531	1,287,475	925,473	..	8,727,615
Repayments ..	..	..	..	..	..	..	..
Total Loan Expenditure—							
Gross ..	12,558,137	3,334,831	4,401,760	3,280,475	3,674,909	524,987	27,775,099
Net ..	11,764,521	2,716,643	2,945,713	2,235,259	3,573,974	118,783	23,354,893
Repayments ..	793,616	618,188	1,456,047	1,045,216	100,935	406,204	4,420,206
1934-35.							
Works and Services—							
Gross Expenditure (a) ..	9,107,075	2,538,521	4,797,715	2,247,668	2,688,720	786,177	23,665,876
Net Expenditure (b) ..	9,724,764	1,780,860	3,109,072	959,479	2,536,213	301,495	18,539,381
Repayments (b) ..	882,313	751,661	1,628,643	1,288,189	150,507	424,682	5,125,995
Other than Works—(c)							
Gross Expenditure ..	161,958	210,573	664,612	923,418	440,230	..	2,409,800
Net Expenditure ..	Cr. 650,183	210,573	104,612	923,418	449,239	..	1,591,659
Repayments ..	(d) 818,141	..	..	..	..	..	818,141
Total Loan Expenditure—							
Gross ..	10,769,033	2,749,094	5,462,327	3,171,086	3,127,959	786,177	26,075,676
Net ..	9,068,579	1,997,433	3,213,684	1,882,897	2,987,452	301,495	20,131,540
Repayments ..	1,700,454	751,661	1,628,643	1,288,189	150,507	424,682	5,944,136
1935-36.							
Works and Services—							
Gross Expenditure (a) ..	9,491,108	3,841,452	4,228,148	2,608,688	2,550,614	1,510,360	24,338,329
Net Expenditure (b) ..	7,078,820	3,115,082	3,000,370	1,022,400	2,451,707	660,870	18,840,155
Repayments (b) ..	1,512,288	725,470	1,221,778	1,066,238	107,907	848,493	5,492,174
Other than Works—(c)							
Gross Expenditure ..	4,445,750	109,619	841,815	36,133	31,357	339,094	5,803,768
Net Expenditure ..	4,445,750	109,619	841,815	29,195	Cr. 57,021	339,094	5,708,452
Repayments ..	..	..	..	6,938	88,378	..	95,316
Total Loan Expenditure—							
Gross Expenditure ..	13,936,858	3,951,071	5,069,963	2,734,771	2,580,971	1,858,463	30,142,097
Net Expenditure ..	12,444,570	3,225,001	3,845,185	1,061,595	2,394,686	999,970	24,554,607
Repayments ..	1,512,288	725,470	1,221,778	1,073,176	196,285	858,493	5,887,490

(a) See Notes to previous tables on Gross Expenditure. (b) See Notes to previous tables on Net Expenditure. (c) Includes amounts utilized towards meeting general cash deficits. (d) Credits on account of amounts utilized towards funding general cash deficits and amounts transferred to Consolidated Revenue to fund deficits. (e) Includes exchange, discounts and flotation expenses, revenue and general cash deficits. (f) Includes amounts available towards funding deficits. (g) Omitting £120,050 on account of Advance to Settlers, Inscribed Stock.

STATE LOAN EXPENDITURE, SUMMARY, 1933-34 TO 1937-38—continued.

Particulars.	New South Wales.	Victoria.	Queens- land.	South Australia.	Western Australia.	Tasmania.	Total.
	£	£	£	£	£	£	£
1936-37.							
Works and Services—							
Gross Expenditure (a) ..	7,182,523	3,303,501	3,760,113	2,966,499	2,155,199	1,997,930	21,365,765
Net Expenditure (b) ..	6,336,078	2,619,060	2,571,593	1,248,222	2,032,224	814,951	15,618,728
Repayments (b) ..	846,445	686,841	1,186,520	1,721,277	122,975	1,182,979	5,747,937
Other than Works—(c)							
Gross Expenditure ..	457,387	66,350	380,190	48,935	522,757	..	1,475,619
Net Expenditure ..	412,387	66,350	380,190	39,595	522,757	..	1,421,279
Repayments ..	45,000	..	..	9,340	..	..	54,340
Total Loan Expenditure—							
Gross ..	7,639,910	3,369,851	4,140,303	3,015,434	2,677,956	1,997,930	22,841,384
Net ..	6,748,465	2,683,010	2,953,783	1,284,817	2,554,981	814,951	17,040,007
Repayments ..	891,445	686,841	1,186,520	1,730,617	122,075	1,182,979	5,801,377
1937-38.							
Works and Services—							
Gross Expenditure (a) ..	8,110,740	3,230,451	3,521,487	2,839,184	2,294,942	1,892,279	21,889,083
Net Expenditure (b) ..	5,100,865	2,345,460	2,224,934	1,133,054	2,160,480	850,305	13,815,098
Repayments (b) ..	3,009,875	884,991	1,296,553	1,706,130	134,462	1,041,974	8,073,985
Other than Works—(c)							
Gross Expenditure—							
Discounts and Flotation							
Expenses ..	969,698	30,836	..	127,250	21,541	..	1,149,325
Revenue and General							
Cash Deficits ..	310,000	..	228,492	..	10,693	..	549,185
Other ..	..	..	100,000	..	..	..	100,000
Total ..	1,279,698	30,836	328,492	127,250	32,234	..	1,798,510
Net Expenditure—							
Discounts and Flotation							
Expenses ..	969,698	30,836	..	126,306	21,541	..	1,148,381
Revenue and General							
Cash Deficits ..	310,000	..	228,492	..	10,693	..	549,185
Other ..	..	..	100,000	..	..	..	100,000
Total ..	1,279,698	30,836	328,492	126,306	32,234	..	1,797,566
Repayments ..	..	..	..	944	..	..	944
Total Loan Expenditure—							
Gross Expenditure ..	9,390,438	3,261,287	3,849,979	2,965,134	2,327,176	1,892,279	23,687,593
Net Expenditure ..	6,336,503	2,376,296	2,553,426	1,252,350	2,192,211	850,305	15,011,691
Repayments ..	3,009,875	884,991	1,296,553	1,707,074	134,462	1,041,974	8,074,929

(a) See Notes to previous tables on Gross Expenditure. (b) See Notes to previous tables on Net Expenditure. (c) Includes exchange, discounts and flotation expenses, revenue and general cash deficits.

Division II.—State Public Debts.

1. General.—The first government loan raised in Australia was obtained by New South Wales in 1842. This and nine other loans prior to 1855 were all procured locally. In the last-mentioned year New South Wales approached the London market for the first instalment of a 5 per cent. loan for £683,300. Victoria first appeared as a borrower in 1854, and made its first appearance on the London market in 1856. The first public loans were raised by the other States in the following years: Queensland 1861, South Australia 1856, Western Australia 1845, and Tasmania 1867.

2. **State Debts, 1934 to 1938.**—The table hereunder shows the State public debts and the amounts owing per head of population at the 30th June in each year from 1934 to 1938 inclusive. The totals include sums advanced by the Commonwealth to the States for settling returned soldiers on the land, and for this reason they differ in some cases from those given in some previous issues. On the transfer of the Queensland State Savings Bank business to the Commonwealth Bank in 1920, Queensland Government securities were handed to the latter for the Savings Bank current account credit balance and for amounts owing on account of Advances to Settlers and Workers' Dwellings. This transaction added a total of £5,936,916 to the Public Debt without involving any additional borrowing.

As provided in the Financial Agreement Act 1928 (particulars of which are given in Chapter I., pages 21 to 33), the Commonwealth Government on 1st July, 1929, assumed the liabilities of the States to bondholders in respect of the debts of the States existing at 1st July, 1929, and taken over by the Commonwealth. Reference is made in Chap. IV. of this volume to certain remissions which the Commonwealth Government made to the States on account of losses sustained by the States in connexion with soldier land settlement; the States' debts were so reduced by £5,000,000 as from 1st October, 1925, and by a further £2,597,783 as from 30th June, 1927. The following figures which represent the total "face" or "book" value of the debt of States leaving out of account currency changes since the loans were floated have been adjusted on this account, and therefore differ from those given in some earlier issues:—

STATE PUBLIC DEBTS.

Date.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
TOTAL.							
30th June, 1934	£ 324,606,868	£ 172,971,789	£ 117,817,353	£ 104,614,292	£ 85,847,802	£ 23,649,918	£ 829,508,022
" 1935	337,101,260	174,100,663	118,846,753	105,349,536	88,900,176	23,923,354	867,971,551
" 1936	346,576,294	175,058,285	122,647,234	105,608,481	90,344,055	24,418,156	864,742,505
" 1937	359,291,499	176,597,010	124,898,475	109,594,164	92,332,855	25,247,540	875,901,543
" 1938	354,167,254	177,228,496	125,781,564	107,450,639	93,711,942	25,840,807	884,180,702

PER HEAD OF POPULATION.(a)

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
30th June, 1934	123 16 4	94 10 10	123 0 4	179 7 2	194 4 3	103 15 0	124 10 2
" 1935	127 0 2	94 15 2	122 15 8	180 2 10	198 15 5	104 11 2	126 7 6
" 1936	130 0 6	94 15 11	125 0 1	179 19 6	200 13 2	106 5 10	127 18 4
" 1937	130 1 10	95 3 9	125 17 11	181 1 6	203 5 5	108 10 0	128 10 5
" 1938	130 3 3	95 0 7	125 6 10	181 10 1	203 14 5	109 19 3	128 11 7

(a) Based on population at 30th June in each year.

The public debt of the whole of the States increased during the period under review by nearly £55 million or at the rate of £14 million per annum. The debt per head of population increased during the period by £4 15s. to £128 11s. 7d. per head or more than 3 per cent. In some States certain public functions such as Tramways, Water Supply and Sewerage, and Harbour Services, etc., are controlled by Boards or Trusts which, in addition to receiving advances from the Central Government, raise loans by public borrowing on their own behalf, while in other States these services are controlled by the Central Governments. Comparisons of the debts of the States are therefore difficult, but on page 950 figures showing the aggregate debts of the States including these local and semi-governmental bodies are given for the years 1935-36 and 1936-37.

3. **Place of Flotation of Loans.**—As pointed out previously, the early loans, usually for comparatively small amounts, were raised locally, but, with the increasing demand for loan funds and the more favourable terms offering in the London market, the practice of raising loans in London came into vogue, and for many years local flotations, except for short terms or small amounts, were comparatively infrequent. In more recent years, however, the accumulating stocks of money in Australia seeking investment have led to the placing of various redemption and other loans locally, with very satisfactory results. Moreover, loans have been placed in New York on account of all States. The following table gives particulars of loans outstanding on the 30th June, 1938, which had been floated abroad and in Australia respectively:—

STATE PUBLIC DEBTS, 30th JUNE, 1938.—PLACE OF FLOTATION OF LOANS.

State.	Floated Abroad.			Floated in Australia.	Grand Total.
	London.	New York.	Total Overseas.		
	£ Stg.	£ (b)	£ (a)	£ Aust.	£ (a)
New South Wales	159,446,470	12,919,963	172,366,433	181,800,821	354,167,254
Victoria ..	62,689,805	4,517,208	67,207,013	110,021,483	177,228,496
Queensland ..	63,011,171	7,118,412	70,129,583	55,651,981	125,781,564
South Australia ..	43,174,156	1,741,132	44,915,288	62,535,351	107,450,639
Western Australia	44,158,404	2,024,005	46,182,409	47,529,533	93,711,942
Tasmania ..	13,408,987	228,741	13,637,728	12,203,079	25,840,807
Total ..	385,888,993	28,549,461	414,438,454	469,742,248	884,180,702

PER HEAD OF POPULATION.

	£ s. d. (Stg.)	£ s. d. (b)	£ s. d. (a)	£ s. d. (Aust.)	£ s. d. (a)
New South Wales	58 12 0	4 15 0	63 7 0	66 16 3	130 3 3
Victoria ..	33 12 3	2 8 6	36 0 9	58 19 10	95 0 7
Queensland ..	62 15 10	7 1 10	69 17 8	55 9 2	125 6 10
South Australia ..	72 18 7	2 18 10	75 17 5	105 12 8	181 10 1
Western Australia	95 19 11	4 8 0	100 7 11	103 6 6	203 14 5
Tasmania ..	57 1 2	0 19 6	58 0 8	51 18 7	109 19 3
Total ..	56 2 4	4 3 0	60 5 4	68 6 3	128 11 7

(a) Total "face" or "book" value of the debt of each State without adjustment on account of currency changes since the loans were floated. (b) See note (c) page 898.

Particulars of the aggregate debts of the States for the last five years showing the amounts which will mature overseas and in Australia respectively will be found on page 944.

4. **Rates of Interest.**—(i) *At 30th June, 1938.* As mentioned previously, the highest rate of interest paid for the earliest State loans was 5½d. per £100 per diem, or, approximately, 8 per cent. per annum. At present the rates vary from 7 per cent. to 1½ per cent., thirty-four separate rates being involved. The average rate payable on the aggregate indebtedness is about £3 15s. per cent. For the separate States the average varies, being lowest for New South Wales and highest for Queensland. The following table gives particulars of the amount of debt at each rate of interest payable, together with the amount and the average rate of interest payable at 30th June, 1938, with separate information for London, New York and Australian maturities. The units of currency in this table are—for debts maturing and interest payable—

in Australia .. £ Australian.
in London .. £ Sterling.
in New York .. Payable in terms of dollars. See note on page 898.

The totals given represent the total "face" or "book" value of the debts of each State without adjustment on account of currency changes since the loans were floated, and the nominal amount (and average rate) of interest payable, taking no account of exchange:—

STATE PUBLIC DEBTS.—RATES OF INTEREST PAYABLE AT 30th JUNE, 1938.

Rate of Interest.	Place of Maturity.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total, All States.
%		£	£	£	£	£	£	£
7.0 ..	New York	..	..	1,843,522	..	..	..	1,843,522
6.0 ..	New York	..	..	2,054,865	..	..	..	2,054,865
5.25 ..	London	17,870,500	..	..	..	..	..	17,870,500
5.0375 ..	Australia	3,035	..	..	8,000	250,000	261,240	522,275
5.0 ..	London	17,094,016	144,159,131	37,591,685	13,000,000	1,000,000	1,335,087	207,593,074
4.75 ..	New York	9,027,330	31,713,631	2,190,973	1,741,432	200,000	128,741	18,885,811
4.65 ..	London	..	5,999,000	..	..	..	..	5,999,000
4.5 ..	Australia	572,910	..	..	1,200	1,217,972	200,000	1,992,082
4.5 ..	New York	3,892,633	773,577	1,029,052	..	..	..	5,695,262
4.2625 ..	Australia	2,124,060	193,200	2,186,120	166,140	62,797	..	4,732,317
4.06875 ..	Australia	11,246,140	6,570	..	495,000	350,000	750	12,708,460
4.0 ..	Australia	67,942,599	53,036,163	1,704,216	3,118,214	1,788,306	7,447,300	128,003,437
3.95667 ..	London	29,221,931	2,917,116	7,980,000	5,921,835	7,630,385	1,800,000	56,480,271
3.95417 ..	Australia	..	5,685,910	..	..	..	..	5,685,910
3.89167 ..	Australia	..	1,875,750	..	..	..	..	1,875,750
3.875 ..	Australia	..	..	..	1,035,000	..	..	1,035,000
3.875 ..	Australia	3,157,250	5,097,479	2,758,849	3,425,475	1,870,939	436,130	14,745,222
3.75 ..	Australia	29,431,670	17,240,305	10,351,704	7,188,700	9,491,845	3,018,840	75,283,069
3.75 ..	London	7,607,633	6,887,649	1,963,300	5,418,300	1,802,601	1,076,000	24,755,188
3.72916 ..	Australia	..	..	..	300,000	..	..	300,000
3.625 ..	Australia	..	877,000	..	..	277,930	27,000	1,172,130
3.5 ..	Australia	4,428,150	2,972,690	1,381,756	1,483,450	1,767,480	71,850	12,105,376
3.4875 ..	London	33,761,751	19,665,995	9,672,000	5,260,776	4,879,062	6,077,250	70,316,834
3.42083 ..	Australia	51,900	500	6,182,334	83,050	445,518	145,836	6,813,138
3.375 ..	Australia	7,406,310	1,528,180	768,740	1,533,050	1,909,620	155,290	13,331,100
3.375 ..	Australia	5,106,060	8,020,735	1,415,755	500,000	1,700,000	171,770	18,103,015
3.25 ..	London	..	652,075	1,237,770	4,412,399	10,611,717	1,277,450	18,190,411
3.125 ..	Australia	2,000	1,000	70,000	325,230	..	..	1,130,230
3.1 ..	Australia	479,811	391,049	5,224,227	..	1,566,000	192,462	7,883,541
3.02083 ..	Australia	..	2,482,000	..	..	..	..	2,482,000
3.0 ..	Australia	17,951,762	3,752,074	8,112,855	3,334,796	3,021,448	904,302	38,579,232
2.90625 ..	London	32,962,113	6,224,014	4,266,413	2,433,499	..	448,300	48,334,339
2.75 ..	Australia	..	220,000	5,100	21,603	..	..	26,703
2.75 ..	London	10,954,600	..	..	1,996,335	3,228,661	..	16,179,596
2.7125 ..	Australia	291,421	446,845	352,915	197,992	..	..	1,289,173
2.325 ..	Australia	645,653	778,083	54,750	373,451	..	..	1,881,037
2.25 ..	London	9,965,276	5,884,825	..	2,815,726	2,998,014	..	21,663,841
2.0 ..	London	..	1,000,000	..	1,000,000	..	491,000	1,491,000
1.75 ..	Australia	30,870,000	3,385,000	2,183,000	4,130,000	5,860,000	170,000	46,508,000
Overdue and unconverted	Australia	..	..	..	..	..	..	..
	London	8,650	..	..	..	..	..	8,650
Total Debt		Australia	181,800,821	110,021,483	55,651,981	62,535,351	47,529,533	12,203,079
		London	150,146,170	62,680,805	63,011,371	4,170,156	14,155,000	3,408,087
		New York	12,019,003	4,517,708	7,118,412	1,741,132	2,021,088	28,741
Total ..		354,167,254	177,228,496	125,781,564	107,450,639	93,711,942	25,840,807	884,180,702
Total Interest Payable		Australia	6,210,907	4,085,273	1,965,835	2,311,884	1,672,651	468,478
		London(a)	5,943,063	2,411,511	2,794,749	1,674,524	1,695,013	491,789
		New York	626,535	221,992	408,195	87,056	101,200	11,437
Total ..		12,780,505	6,718,776	5,168,179	4,073,464	3,468,864	971,704	33,181,492
Average Rates of Interest Payable		Australia	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
		London	3 8 4	3 14 3	3 10 8	3 13 11	3 10 5	3 16 9
		New York	5 14 7	3 16 11	4 8 8	3 17 7	3 16 9	3 13 4
Total ..		3 12 2	3 15 10	4 2 2	3 15 10	3 14 0	3 15 2	3 15 1

(a) Includes contributions payable by Commonwealth and British Governments towards interest on Migration Loans.

The average rate of interest payable shows a very substantial decrease due to the internal debt conversion in July and August, 1931. The average rate for debt maturing in Australia has been reduced from £5 4s. 9d. per cent. in 1931 to £3 11s. 2d. per cent. in 1938. For debt maturing in London the average rate increased from £4 12s. 7d. per cent. in 1931 to £4 13s. 3d. in 1932, but, as a result of the conversions effected in London prior to 30th June, 1937, fell to £3 17s. 10d., while for New York loans it decreased from £5 2s. 6d. per cent. in 1931 to £5 2s. in 1938.

(ii) *Variations from 1901 to 1938.*—The variations in the rates of interest payable on the public debts of the States are shown in the following table which gives the percentages of the total debts in various interest groups during the years specified, and the average rate of interest in each year:—

STATE PUBLIC DEBTS. —PERCENTAGES, ETC., IN VARIOUS INTEREST GROUPS.

Interest Rates.	Percentage of Total Debt at 30th June—						
	1901.	1911.	1921.	1931.	1936.	1937.	1938.
	%	%	%	%	%	%	%
Not exceeding 3 per cent. ..	18.0	17.9	10.2	5.3	18.3	19.9	19.6
Exceeding 3 per cent. but not exceeding 4 per cent. ..	78.5	81.9	45.4	17.2	60.3	60.1	61.3
Exceeding 4 per cent. but not exceeding 5 per cent. ..	3.1	0.1	15.6	36.8	18.8	17.5	16.6
Exceeding 5 per cent. but not exceeding 6 per cent. ..	0.4	0.1	23.5	38.4	2.4	2.3	2.3
Exceeding 6 per cent. ..	..	..	5.3	2.3	0.2	0.2	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Average Rate ..	3.7	3.6	4.4	4.9	3.8	3.8	3.8

5. *Dates of Maturity.*—Securities like the British Consols are interminable, but Australian debts have in most cases a fixed date for repayment, there being a few exceptions which are included in the following table under the headings "interminable," "Treasurer's option," and "not fixed." Those terminable at "Treasurer's option" include amounts which are payable by the respective Governments after giving a specified notice, and those "not fixed" consist of certain amounts owing to the Commonwealth Government. Generally, renewal is effected at date of maturity in respect of the greater portion of the loan. In order to avoid application to the market at an unfavourable time, several States adopted the practice of specifying a period prior to the date of maturity within which the Government, on giving twelve, or in some cases six months' notice, has the option of redeeming the loan. The Government can, therefore, take advantage of opportunities that may offer during the period for favourable renewals. Particulars concerning the due dates of latest maturity of the State loans outstanding on the 30th June, 1938, are given in the following table, the various maturities being grouped according to years ending 30th June.

STATE PUBLIC DEBT, 30th JUNE, 1938.—LATEST DATES OF MATURITY.

Year of Maturity.	Place of Maturity.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total, All States.
		£	£	£	£	£	£	£
1938-39	Australia	41,773,031	19,726,616	8,361,044	11,792,793	9,258,161	1,750,009	92,661,65
	London	9,965,276	5,884,825	..	6,174,002	2,998,014	491,000	25,513,117
1939-40	Australia	4,813,980	8,529,812	..	2,213,992	1,175,429	35,300	16,768,513
	London	..	..	..	..	..	4,604,800	4,604,800
1940-41	Australia	711,845	3,612,200	2,635,932	992,100	599,888	201,830	8,753,795
	London	30,736,090	19,683,687	2,719,530	10,532,264	4,304,249	1,134,585	69,170,405
1941-42	Australia	12,420,113	1,049,868	..	..	..	..	13,469,981
	New York	..	..	1,843,522	..	..	..	1,843,522
1942-43	Australia	14,836,270	4,446,045	1,934,220	4,966,815	3,440,377	461,190	30,064,917
	London	10,954,600	..	..	1,996,335	3,228,661	..	16,179,596
1943-44	Australia	4,822,650	2,158,040	352,840	1,498,550	2,304,920	71,850	11,215,850
	London	11,238,240	6,196,237	5,508,942	5,245,527	1,778,351	794,321	28,340,153
1944-45	Australia	..	..	3,985,000	..	..	..	3,985,000
	London	1,100	15,400	..	..	..	..	16,500
1945-46	Australia	..	..	1,037,928	200,000	..	250,000	1,487,928
	London	..	..	4,266,413	..	1,417,800	..	5,684,213
1946-47	Australia	..	..	2,054,865	..	..	..	2,054,865
	New York	..	..	..	..	..	..	..
1947-48	Australia	4,782,067	4,542,045	1,909,985	2,929,463	1,854,959	614,390	16,632,909
	London	15,373,390	5,109,250	2,915,551	919,470	4,323,095	855,730	29,877,486
1948-49	Australia	12,268,489	12,061,795	2,000,000	8,396,100	2,716,302	1,076,000	30,511,686
	London	..	3,531,783	4,984,537	1,495,010	3,060,700	484,150	24,704,420
1949-50	Australia	..	6,082,195	..	..	..	..	6,082,195
	London	4,679,805	4,165,198	2,480,617	2,759,897	1,347,198	553,632	15,086,347
1950-51	Australia	11,779,028	..	5,980,000	..	..	..	17,759,028
	London	9,953,020	3,802,370	4,483,949	2,533,950	3,952,210	1,041,320	28,769,116
1951-52	Australia	7,000	..	484,718	..	..	..	484,718
	London	11,975,958	..	..	..	..	..	11,975,958
1952-53	Australia	4,519,235	4,148,332	1,864,657	2,650,108	1,265,824	709,300	15,177,456
	London	11,043,048	..	..	2,902,500	918,193	1,920,750	16,784,491
1953-54	Australia	2,444,160	834,700	1,501,248	457,900	545,320	256,670	6,034,988
	London	..	..	..	..	3,217,904	..	3,217,904
1954-55	Australia	4,539,991	3,928,303	1,576,462	2,614,802	1,293,503	570,490	14,533,551
	New York	3,892,633	2,637,060	1,727,651	738,179	1,500,129	..	10,495,552
1955-56	Australia	..	..	346,684	..	..	..	346,684
	London	4,494,093	..	..	..	..	..	4,494,093
1956-57	Australia	4,433,964	3,930,618	1,530,090	2,588,906	1,392,945	551,906	14,488,420
	London	38,412,300	..	..	..	..	..	38,412,300
1957-58	Australia	4,533,237	1,880,148	1,492,374	1,002,953	523,876	228,741	9,061,329
	New York	..	..	384,082	..	164,145	..	548,227
1958-59	Australia	3,829,050	13,583,800	3,716,700	..	..	..	21,129,550
	London	4,449,704	3,912,186	2,137,958	2,511,868	1,535,678	719,049	15,206,443
1959-60	Australia	..	2,917,116	..	..	884,408	..	3,801,524
	London	..	..	717,535	..	424,446	..	1,141,981
1960-61	Australia	..	6,651,075	21,379,520	3,667,847	1,739,520	192,200	33,888,518
	London	4,309,742	3,977,328	1,363,573	2,511,034	1,453,083	635,217	14,244,879
1961-62	Australia	..	..	..	..	4,923,083	..	4,923,083
	London	106,804	..	458,106	..	153,523	..	718,433
1962-63	Australia	10,372,390	..	..	..	..	..	10,372,390
1963-64	Australia	..	..	..	..	1,566,000	..	1,566,000
1965-66	London	14,130,000	..	..	..	..	..	14,130,000
1969-70	London	..	..	1,970,300	..	..	..	1,970,300
1970-71	London	9,322,446	..	..	..	..	..	9,322,446
1974-75	London	..	..	..	3,693,587	8,872,191	1,085,250	13,651,028
1975-76	Australia	..	..	50,064	..	..	..	50,064
	London	2,962,816	14,459,131	19,712,888	13,910,286	12,998,964	1,238,987	65,283,072
Overdue and unconverted	Australia	90	..	250	..	..	..	340
	London	8,650	..	..	..	..	..	8,650
Interminable	Australia	363,707	..	..	98,333	..	..	462,000
	London	1,200	..	..	..	..	..	1,200
Treasurer's Option	Australia	6,070,924	..	..	497,300	..	..	6,568,223
	London	..	..	..	2,433,499	..	..	2,433,499
Half-yearly drawings	Australia	..	..	3,911,480	..	284,626	512,140	4,708,246
	London	..	..	..	..	243,358	..	243,358
Not fixed	Australia	..	3,776,833	..	524,850	..	..	4,301,683
Total	Australia	181,800,821	110,021,483	55,651,981	62,535,351	47,529,533	12,203,070	460,742,248
	London	150,116,170	62,080,805	93,011,171	43,174,150	44,158,404	13,400,987	385,888,993
	New York	12,919,963	4,517,208	7,118,412	1,741,132	2,024,005	228,741	28,549,461
Total ..		354,167,254	177,228,496	125,781,564	107,450,639	93,711,942	25,840,807	884,180,702

STATE PUBLIC DEBTS.

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Particulars of the State Public Debts according to the year of earliest maturity are shown hereunder:—

STATE PUBLIC DEBTS, 30TH JUNE, 1938.—EARLIEST DATES OF MATURITY.

Year of Maturity.	Place of Maturity.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total, All States.
		£	£	£	£	£	£	£
Before 1938—39	Australia	506,567	..	2,526,320	..	..	..	3,032,887
	London	11,779,928	..	4,266,413	..	4,935,704	4,604,800	25,286,845
	New York	3,802,633	..	1,029,052	..	..	..	4,921,685
1938—39	Australia	11,700,731	10,700,616	6,171,921	11,700,703	6,288,161	1,700,000	60,172,731
	London	9,905,270	5,884,825	..	0,174,002	2,998,014	491,000	35,513,117
1939—40	Australia	4,811,080	8,537,706	..	2,213,092	1,173,420	35,300	16,773,507
	London	12,420,113	3,966,984	..	..	884,408	..	17,271,505
1940—41	Australia	274,800	3,612,200	2,635,932	992,100	599,888	201,830	8,316,740
	London	10,954,600	5,909,000	26,122,100	4,940,370	3,228,661	2,800,000	54,044,731
	Australia	30,731,190	19,663,687	2,719,530	10,532,264	4,364,210	1,134,585	69,105,505
1941—42	London	..	..	..	..	4,923,083	..	4,923,083
	New York	9,027,330	..	1,843,522	..	..	..	10,870,852
1942—43	Australia	14,924,324	4,446,045	1,934,220	4,966,815	3,440,377	461,190	30,172,971
	London	10,372,366	..	..	..	..	..	10,372,366
1943—44	Australia	4,820,350	2,158,040	352,540	1,499,550	2,101,700	71,950	11,221,101
	London	9,527,089	..	2,000,000	2,977,800	2,716,302	..	17,221,101
1944—45	Australia	6,823,512	6,196,237	5,508,942	5,245,887	1,768,354	794,321	26,337,253
	London	..	..	3,985,000	..	..	..	3,985,000
1945—46	Australia	800	15,400	50,064	..	..	..	66,264
	London	19,834,216	21,346,780	19,712,888	10,328,886	10,998,061	2,311,087	95,546,421
	Australia	..	..	1,037,928	200,000	..	250,000	1,487,928
1946—47	New York	..	..	2,054,865	..	..	..	2,054,865
	Australia	1,777,007	4,542,045	1,969,985	2,929,163	1,351,050	614,390	16,624,800
1947—48	London	17,870,500	..	..	..	..	..	17,870,500
	New York	..	1,880,148	1,492,374	1,002,953	523,876	228,741	5,128,092
	Australia	15,370,000	5,109,250	2,915,551	919,470	4,323,095	855,730	29,493,186
1948—49	London	4,866,233	5,174,146	..	..	918,193	..	10,958,572
	Australia	11,235,540	3,521,783	1,904,557	1,195,016	3,060,700	181,150	21,201,700
1949—50	London	..	6,082,195	1,970,300	..	..	..	8,052,495
1950—51	Australia	26,923,069	23,985,503	8,300,648	15,636,615	7,652,415	2,784,688	85,282,938
	London	15,182,773	..	..	2,002,500	..	1,020,750	22,976,023
	Australia	9,953,620	3,902,870	4,183,046	2,533,950	3,981,210	1,011,320	25,707,016
1951—52	Australia	2,111,160	831,700	1,210,888	157,000	518,320	256,070	3,719,048
	New York	..	1,863,483	698,590	738,179	1,500,129	..	4,800,390
1952—53	Australia	..	62,478	669,878	..	..	143,000	875,356
	London	3,829,050	13,583,800	3,716,700	..	..	..	21,229,550
1953—54	Australia	..	..	775,378	..	..	..	775,378
	London	20,542,000	..	..	..	..	..	20,542,000
1954—55	Australia	..	..	305,869	..	..	..	305,869
	London	9,322,416	682,075	1,237,770	723,812	1,739,526	102,200	13,867,810
	New York	..	773,577	..	..	..	..	773,577
1955—56	Australia	..	..	346,684	..	..	..	346,684
	London	..	..	284,069	..	142,806	551,906	978,871
1956—57	Australia	..	..	384,082	..	164,145	..	548,227
1957—58	Australia	..	..	886,858	..	311,563	165,000	1,363,421
1958—59	Australia	..	..	..	..	..	..	..
1959—60	Australia	..	..	..	..	..	..	..
1960—61	Australia	..	..	717,535	..	424,446	..	1,141,981
1961—62	Australia	..	..	165,837	..	182,257	95,000	443,094
1962—63	Australia	..	..	458,106	..	153,523	..	611,629
1963—64	Australia	..	..	..	..	1,566,000	..	1,566,000
1964—65	Australia	..	..	..	3,693,587	8,872,191	1,085,250	13,651,028
Overdue and unconverted	Australia	90	..	250	..	..	..	340
	London	8,650	..	..	..	..	..	8,650
Interimable	Australia	363,707	..	..	98,383	..	..	462,090
	London	1,200	..	..	..	..	..	1,200
Treasurer's Option	Australia	6,070,924	..	..	497,300	..	..	6,568,223
	London	..	..	..	2,433,499	..	..	2,433,499
Half-yearly drawings	Australia	..	..	3,911,480	..	284,626	512,140	4,708,246
	London	..	..	..	..	243,358	..	243,358
Not fixed	Australia	..	3,776,833	..	524,850	..	..	4,301,683
Total	Australia	181,800,821	110,021,483	55,651,081	62,535,351	47,529,533	12,203,079	469,742,248
	London	159,416,700	62,089,805	63,011,171	13,174,150	13,158,104	13,008,287	285,888,003
	New York	12,919,963	4,517,208	7,118,412	1,741,142	2,024,005	228,741	28,540,461
Total ..		354,167,254	177,228,496	125,781,564	107,450,639	93,711,942	25,840,807	884,180,702

6. **Sinking Funds.**—Prior to the passing of the Financial Agreement Act 1928, the practice of providing sinking funds by the States had been consistently followed in Western Australia only. This State had established sinking funds in connexion with each of its loans the contributions to which varied from 1 per cent. to 3 per cent. per annum of the nominal amount of the loan. The funds are placed with trustees in London, by whom they are invested in securities, and applied from time to time to the redemption of loans falling due. In the other States the sinking fund provision varies, consisting in certain instances of the revenues from specified sources, in others of the Consolidated Revenue Fund surplus, and in others again of fixed annual amounts. The Financial Agreement Act 1928 contains provisions for the establishment of a sinking fund on States' debts, and details are included in Part III., Section 3 of the Financial Agreement between the Commonwealth and States which is shown in Chapter I., pages 21 to 33, of this volume. Details of the transactions of the National Debt Sinking Fund (States' Account) for 1937–38 are given in Finance Bulletin No. 29 issued by this Bureau.

D.—COMMONWEALTH AND STATE FINANCE.

1. **Revenue and Expenditure.**—The following tables show the aggregate revenue and expenditure of the Commonwealth and States for each of the five years to 1937–38, allowance having been made in cases of duplication:—

COMMONWEALTH AND STATES.—REVENUE.

Year ended 30th June—				Revenue collected by Commonwealth Government.(a)	Revenue collected by State Governments.(b)(c)	Total.
				£	£	£
1934	..	..	..	72,597,082	92,232,803	164,829,945
1935	..	..	..	75,956,678	97,372,643	173,329,321
1936	..	..	..	81,923,489	102,227,540	184,151,035
1937	..	..	..	82,775,120	109,075,492	191,850,612
1938	..	..	..	89,416,077	116,244,292	205,660,369

(a) Excluding Interest on Loans to States for Soldier Land Settlement, Miscellaneous Loans, and Balance of Interest on States' Debts. (b) Excluding Payments by Commonwealth Government under "Surplus Revenue", "Special Grants", "Financial Agreement", and "Federal Aid Roads" Acts.
(c) See C. § 1, par. 2, *ante*.

COMMONWEALTH AND STATES.—EXPENDITURE.

Year ended 30th June—				Expenditure by Commonwealth Government.(a)	Expenditure by State Governments.(c)	Total.
				£	£	£
1934	..	..	..	(b) 61,580,600	108,933,306	170,513,906
1935	..	..	..	(b) 65,260,561	110,773,219	176,033,780
1936	..	..	..	(b) 67,983,128	115,147,782	183,130,910
1937	..	..	..	(b) 71,445,401	119,492,741	190,938,142
1938	..	..	..	(b) 75,945,475	126,241,129	202,186,604

(a) Excluding Payments to States and Interest on States' Debts, etc. (b) Payments to States by Commonwealth for relief of Wheat-growers and other Primary Producers not deducted. (c) See C. § 1, par. 2, *ante*.

2. **Taxation.**—The table hereunder shows the combined Commonwealth and State taxation for each of the years 1933-34 to 1937-38, as well as the amount per head of population. Certain taxation collections by the State Governments which are not paid into the Consolidated Revenue Fund have been included:—

TOTAL COMMONWEALTH AND STATE TAXATION.

Particulars.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38
	£	£	£	£	£
Commonwealth—					
Customs and Excise ..	34,254,842	37,869,486	41,437,717	42,993,032	48,383,005
Sales Tax	8,695,689	8,554,076	9,432,468	8,008,427	8,023,886
Flour Tax	1,253,957	798,354	1,150,738	Dr. 12,193	3,025
Other	12,204,240	11,532,608	11,596,383	11,784,186	12,638,569
Total	56,408,728	58,754,524	63,617,306	62,773,452	69,048,485
State	34,401,001	36,461,255	40,981,823	45,457,135	49,692,793
Grand Total ..	90,809,729	95,215,779	104,599,129	108,230,587	118,741,278

Taxation per head (a)—

Commonwealth—	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Customs and Excise ..	5 2 11	5 13 0	6 2 9	6 6 4	7 1 0
Sales Tax	1 6 2	1 5 6	1 7 11	1 3 6	1 3 4
Flour Tax	0 3 9	0 2 5	0 3 5	..	..
Other	1 16 8	1 14 5	1 14 5	1 14 8	1 16 10
Total	8 9 6	8 15 4	9 8 6	9 4 6	10 1 2
State	5 3 7	5 9 0	6 1 8	6 13 11	7 5 2
Grand Total ..	13 12 11	14 4 1	15 9 11	15 18 1	17 6 0

(a) Based on mean population of each financial year; that for States, on the aggregate mean population of the six States.

3. **Public Debt.**—(i) *General.* The table hereunder shows the public debt of the Commonwealth and of the States at the 30th June in each of the years 1934 to 1938. In this table all moneys borrowed by the Commonwealth on behalf of the States have been included with State debts only, and similarly, the debts taken over by the Commonwealth from South Australia on account of the Northern Territory and of the Port Augusta—Oodnadatta Railway have been included with the Commonwealth Debt:—

COMMONWEALTH AND STATES' PUBLIC DEBTS.

Particulars.	Where Redeemable.	At 30th June—				
		1934.	1935.	1936.	1937.	1938.
		£ (a)	£ (a)	£ (a)	£ (a)	£ (a)
Commonwealth ..	Aust. ..	218,605,035	220,280,163	218,291,973	214,818,637	216,400,462
	London	157,533,141	157,233,111	156,288,327	155,778,627	158,363,627
	New York	16,711,476	16,526,641	16,351,176	16,201,952	16,080,972
	Total (b)	392,939,651	394,039,945	390,928,476	386,799,216	390,845,061
States ..	Aust. ..	410,478,856	429,701,893	447,258,509	459,579,899	469,742,248
	London	389,792,322	389,223,822	388,575,335	387,633,735	385,888,993
	New York	29,236,844	29,038,036	28,908,661	28,747,909	28,549,461
	Total (b)	829,508,022	847,963,751	864,742,505	875,961,543	884,180,702
Total, Commonwealth and States	Aust. ..	629,173,891	649,982,056	665,550,482	674,398,536	686,142,710
	London	547,325,462	546,456,963	544,860,662	543,412,362	544,252,620
	New York	45,948,320	45,564,677	45,259,837	44,949,861	44,630,433
	Grand Total (b)	1,222,447,673	1,242,003,696	1,255,670,981	1,262,760,759	1,275,025,763

(a) The units of currency are—

For debt maturing in Australia	..	..	..	£ (Aust.)
For debt maturing in London	..	..	..	£ (Stg.)
For debt maturing in New York	..	..	..	\$

* Payable in terms of dollars. See note (c) on page 945.

(b) The "face" or "book" value of the debts without adjustment on account of currency changes since the loans were floated.

(ii) *Dates of Maturity.* The particulars given in the appended table show as at 30th June, 1938, the amounts of Commonwealth and States' securities maturing in Australia and overseas according to the latest year of maturity, together with the amount of interest payable yearly thereon. It should be noted that the year of maturity is given for fiscal years ended 30th June and for that reason the information is not directly comparable with statements published in issues of the Official Year Book prior to No. 24.

COMMONWEALTH AND STATES' PUBLIC DEBTS, 30th JUNE, 1938. — LATEST DATES OF MATURITY.

Year of Maturity.	Commonwealth and States' Debts.				Annual Interest Payable at 30th June, 1938, in respect of Commonwealth and States' Debts Maturing in the Years stated.			
	Maturing in—				Interest Payable.			
	Australia.	London.	New York.	Total.	In Australia.	In London.	In New York.	Total.
	£	£ (Stg.)	£ (c)	£ (a)	£	£ (Stg.)	£ (c)	£ (b)
1938-39	137,781,539	31,167,801	..	168,949,340	4,145,075	726,520	..	4,871,595
1939-40	17,215,951	4,604,800	..	21,820,751	550,670	158,927	..	709,597
1940-41	9,656,065	..	..	9,656,065	335,961	..	..	335,961
1941-42	99,747,765	13,469,981	1,843,522	115,061,268	3,987,549	404,099	129,046	4,520,694
1942-43	34,400,007	16,551,402	..	50,952,309	1,313,620	455,164	..	1,768,784
1943-44	12,361,160	..	..	12,361,160	446,409	..	..	446,409
1944-45	50,603,385	3,985,000	..	54,588,385	1,938,900	139,475	..	2,078,375
1945-46	16,500	..	..	16,500	453	..	..	453
1946-47	1,487,928	5,684,213	2,054,865	9,227,006	56,792	177,615	123,292	357,699
1947-48	38,217,936	..	..	38,217,936	1,516,321	..	..	1,516,321
1948-49	34,153,156	38,518,686	..	72,671,842	1,128,729	1,448,697	..	2,577,426
1949-50	25,013,870	6,082,195	..	31,096,065	888,400	212,877	..	1,101,277
1950-51	29,662,238	20,559,928	..	50,222,166	1,179,227	763,498	..	1,942,725
1951-52	27,894,016	..	..	27,894,016	1,044,571	..	..	1,044,571
1952-53	491,718	11,975,958	..	12,467,676	17,149	419,159	..	436,308
1953-54	28,047,966	30,622,791	..	58,670,757	1,118,193	1,120,854	..	2,239,047
1954-55	11,209,398	3,217,904	..	14,427,302	421,315	112,627	..	533,942
1955-56	27,284,499	..	24,239,392	51,523,891	1,090,098	..	1,164,684	2,255,682
1956-57	346,684	7,000,000	4,494,093	11,840,777	13,867	262,500	224,705	501,072
1957-58	26,688,565	38,412,500	11,998,561	77,099,626	1,066,384	1,554,461	599,928	3,220,773
1958-59	548,227	21,120,550	..	21,677,777	19,188	739,534	..	758,722
1959-60	27,466,045	3,801,524	..	31,267,569	1,087,211	148,850	..	1,236,061
1960-61	1,141,981	55,891,835	..	57,033,816	34,260	2,346,496	..	2,380,756
1961-62	25,851,494	4,923,083	..	30,774,577	1,029,620	196,923	..	1,226,543
1962-63	718,433	10,372,396	..	11,090,829	21,660	414,896	..	436,556
1963-64	1,566,000	..	..	1,566,000	48,546	..	..	48,546
1964-65	..	..	..	..	..	..	..	..
1965-66	..	14,130,000	..	14,130,000	..	706,500	..	706,500
1966-67	..	..	..	..	..	..	..	..
1967-68	..	..	..	..	..	..	..	..
1968-69	..	..	..	..	..	..	..	..
1969-70	..	1,970,300	..	1,970,300	..	68,961	..	68,961
1970-71	..	9,322,446	..	9,322,446	..	372,898	..	372,898
1971-72	..	..	..	..	..	..	..	..
1972-73	..	..	..	..	..	..	..	..
1973-74	..	..	..	..	..	..	..	..
1974-75	..	14,007,806	..	14,007,806	..	455,254	..	455,254
1975-76	50,064	94,439,566	..	94,489,630	1,552	4,721,979	..	4,723,531
Overdue	(d) 51,370	8,650	..	(d) 60,020	512	..	..	512
Interimable ..	462,090	1,200	..	463,290	15,217	60	..	15,277
Treasurers' Option ..	6,568,233	2,433,526	..	9,001,759	189,346	73,006	..	262,352
Half-yearly Drawings ..	4,933,364	243,358	..	5,176,722	162,675	8,518	..	171,193
Annual Repayments ..	..	79,724,221	..	79,724,221	..	(e)	..	..
Indefinite	4,504,163	..	..	4,504,163	146,401	..	..	146,401
Total	686,142,710	544,252,620	44,630,433	1,275,025,763	25,016,780	18,211,348	2,241,655	45,469,783

(a) The total "face" or "book" value of the Public Debt, leaving out of account currency changes since the loans were floated. (b) Nominal amount of interest payable takes no account of exchange.

(c) Payable in terms of dollars. For the purposes of this table, dollars have been arbitrarily converted at the rate of \$4.8665 to £1. (d) Includes £12,800 unconverted. (e) Interest payments suspended by arrangement with British Government.

The following table gives particulars of Commonwealth and States Public Debt as at the 30th June, 1938, according to the earliest year of maturity, together with the amount of interest payable yearly:—

COMMONWEALTH AND STATES' PUBLIC DEBTS, 30th JUNE, 1938.—EARLIEST DATES OF MATURITY.

Year of Maturity.	Commonwealth and States' Debts.				Annual Interest Payable at 30th June, 1938, in respect of Commonwealth and States' Debts Maturing in the Years stated.			
	Maturing in.				Interest Payable.			
	Australia.	London.	New York.	Total.	In Australia.	In London.	In New York.	Total.
	£	£ (Stg.)	£ (c)	£ (a)	£	£ (Stg.)	£ (c)	£ (b)
Before 1938-39 ..	3,032,887	25,286,845	4,921,685	33,241,417	127,298	861,467	221,476	1,210,241
1938-39 ..	135,592,119	31,167,801	..	166,759,920	4,051,777	726,520	..	4,778,297
1939-40 ..	17,221,035	17,271,505	..	34,492,540	559,816	553,949	..	1,104,765
1940-41 ..	9,219,020	60,416,537	..	69,635,557	315,636	2,476,642	..	2,792,278
1941-42 ..	99,742,865	4,923,083	10,870,852	115,536,800	3,987,359	196,923	580,413	4,764,695
1942-43 ..	34,488,061	10,372,396	..	44,860,457	1,316,236	414,866	..	1,731,132
1943-44 ..	12,357,860	17,221,191	..	29,579,051	446,294	688,818	..	1,135,112
1944-45 ..	50,600,485	3,985,000	..	54,585,485	1,938,798	139,475	..	2,078,273
1945-46 ..	66,264	124,692,915	..	124,759,179	1,994	6,033,104	..	6,035,098
1946-47 ..	1,487,928	..	2,054,865	3,542,793	56,792	..	123,292	180,084
1947-48 ..	38,209,836	17,870,500	7,465,324	63,545,660	1,516,038	938,201	373,266	2,827,505
1948-49 ..	34,149,856	24,796,872	..	58,946,728	1,128,614	891,076	..	2,019,690
1949-50 ..	25,011,170	8,052,495	..	33,063,665	888,306	281,838	..	1,170,144
1950-51 ..	98,958,829	22,976,023	..	121,934,852	3,953,426	804,161	..	4,757,587
1951-52 ..	27,894,016	..	..	27,894,016	1,044,571	..	..	1,044,571
1952-53 ..	5,746,638	7,000,000	14,782,287	27,526,925	214,227	262,500	739,114	1,215,841
1953-54 ..	13,765,866	21,129,550	..	34,895,416	546,925	739,534	..	1,286,459
1954-55 ..	5,944,778	20,542,000	..	26,486,778	223,899	616,260	..	840,159
1955-56 ..	13,066,817	30,129,146	4,535,420	47,731,383	522,291	1,049,116	204,094	1,775,501
1956-57 ..	316,684	..	..	316,684	13,867	..	..	13,867
1957-58 ..	13,239,007	..	..	13,239,007	528,402	..	..	528,402
1958-59 ..	548,227	..	..	548,227	19,188	..	..	19,188
1959-60 ..	13,563,023	..	..	13,563,023	531,162	..	..	531,162
1960-61 ..	1,141,981	..	..	1,141,981	34,260	..	..	34,260
1961-62 ..	12,049,709	..	..	12,049,709	477,558	..	..	477,558
1962-63 ..	611,629	..	..	611,629	18,349	..	..	18,349
1963-64 ..	1,566,000	..	..	1,566,000	48,546	..	..	48,546
1964-65 ..	..	14,007,806	..	14,007,806	..	455,254	..	455,254
1965-66 ..	..	..	..	..	..	..	..	..
1966-67 ..	..	..	..	..	..	..	..	..
1967-68 ..	..	..	..	..	..	..	..	..
1968-69 ..	..	..	..	..	..	..	..	..
1969-70 ..	..	..	..	..	..	..	..	..
1970-71 ..	..	..	..	..	..	..	..	..
1971-72 ..	..	..	..	..	..	..	..	..
1972-73 ..	..	..	..	..	..	..	..	..
1973-74 ..	..	..	..	..	..	..	..	..
1974-75 ..	..	..	..	..	..	..	..	..
1975-76 ..	..	..	..	..	..	..	..	..
Overdue ..	(d) 51,370	8,650	..	(d) 60,020	512	..	..	512
Indefinite ..	462,090	1,200	..	463,290	15,217	..	..	15,227
Treasurers' Option ..	6,568,233	2,433,526	..	9,001,759	189,346	73,006	..	202,352
Half-yearly Drawings ..	4,933,364	243,358	..	5,176,722	162,675	8,518	..	171,193
Annual Repayments ..	..	79,724,221	..	79,724,221	..	(e)	..	..
Indefinite ..	4,504,163	..	..	4,504,163	146,401	..	..	146,401
Total ..	686,142,710	514,252,620	11,630,133	1,275,025,703	25,016,780	2,211,448	2,211,655	45,440,783

(a) The total "face" or "book" value of the Public Debt, leaving out of account currency changes since the loans were floated. (b) Nominal amount of interest payable takes no account of exchange. (c) Payable in terms of dollars. For the purposes of this table, dollars have been arbitrarily converted at the rate of \$4.866s to £1. (d) includes £12,800 unconverted. (e) Interest payments suspended by arrangement with British Government.

(iii) *Rates of Interest, 30th June, 1938.* The amount of Commonwealth and States' Public Debt at each rate of interest (internal and external debt shown separately) is given in the following table :—

COMMONWEALTH AND STATES' PUBLIC DEBTS, 30th JUNE, 1938.—AMOUNT AT EACH RATE OF INTEREST.

Rate of Interest.	Commonwealth and States' Debt maturing—			
	In Australia.	In London.	In New York.	Total.
	£ (Aust.)	£ (Stg.)	£ (c)	£ (b)
7.0	..	..	1,843,522	1,843,522
6.0	..	..	2,054,865	2,054,865
5.25	..	17,870,500	..	17,870,500
5.0375	522,275	..	..	522,275
5.0	5,409	126,749,567	31,274,941	158,029,917
4.91667	..	79,724,220	..	79,724,220
4.75	..	11,999,000	..	11,999,000
4.65	2,331,202	..	..	2,331,202
4.5	..	..	9,457,105	9,457,105
4.45625	84,650	..	..	84,650
4.2625	5,692,143	..	..	5,692,143
4.25	88,382	..	..	88,382
4.06875	15,218,300	..	..	15,218,300
4.0	371,535,297	56,480,267	..	428,015,564
3.96667	5,685,910	..	..	5,685,910
3.95417	1,875,750	..	..	1,875,750
3.89167	1,035,000	..	..	1,035,000
3.875	25,571,538	..	..	25,571,538
3.75	85,135,574	45,593,783	..	130,729,357
3.72916	300,000	..	..	300,000
3.675	66,510	..	..	66,510
3.625	1,182,130	..	..	1,182,130
3.5	13,250,686	79,476,358	..	92,727,044
3.4875	6,909,138	..	..	6,909,138
3.42083	1,130,950	..	..	1,130,950
3.375	13,828,810	..	..	13,828,810
3.25	18,176,928	34,814,506	..	52,991,434
3.125	398,230	..	..	398,230
3.1	7,853,549	..	..	7,853,549
3.02083	2,482,000	..	..	2,482,000
3.0	45,048,588	46,334,366	..	91,382,954
2.90625	247,475	..	..	247,475
2.75	..	16,551,402	..	16,551,402
2.7125	1,291,181	..	..	1,291,181
2.5	..	..	..	..
2.325	1,851,937	..	..	1,851,937
2.25	..	26,159,001	..	26,159,001
2.0	..	2,491,000	..	2,491,000
1.75	57,290,248	..	..	57,290,248
Overdue (a) ..	52,920	8,650	..	61,570
Total	686,142,710	544,252,620	44,630,433	1,275,025,763
Average Rate of Interest ..	£ s. d. 3 12 11	£ s. d. 3 18 5	£ s. d. 5 0 5	£ s. d. 3 16 1

(a) Excludes unconverted securities. (b) Total "face" or "book" value of the Public Debt without adjustment on account of currency changes since the loans were floated. (c) See note (c) on page 946.

(iv) *Interest Payable.* The table hereunder shows the interest payable on the public debt of the Commonwealth and of the States at the 30th June in each of the years 1934 to 1938 :—

COMMONWEALTH AND STATES' PUBLIC DEBTS, INTEREST PAYABLE.

Particulars.	Where Payable.	At 30th June.				
		1934.	1935.	1936.	1937.	1938.
		£ (a)	£ (a)	£ (a)	£ (a)	£ (a)
Commonwealth ..	Australia ..	8,458,441	8,433,132	8,363,055	8,245,897	8,301,752
	London (a) ..	3,126,780	3,108,395	3,077,601	3,049,862	3,301,299
	New York ..	814,646	805,973	797,954	790,935	785,240
	Total (b) ..	12,699,867	12,347,500	12,238,610	12,077,094	12,288,291
States ..	Australia ..	15,074,057	15,297,303	15,841,783	16,333,969	16,715,028
	London (c) ..	16,111,780	15,883,742	15,407,943	15,070,888	15,010,040
	New York ..	1,490,270	1,480,500	1,474,208	1,466,264	1,456,415
	Total (b)	32,676,107	32,661,545	32,723,934	32,871,121	33,181,492
Total Commonwealth and States ..	Australia ..	23,532,498	23,730,435	24,204,838	24,579,866	25,016,780
	London (d) ..	19,538,560	18,992,137	18,485,543	18,111,150	18,211,348
	New York ..	2,304,916	2,286,473	2,272,162	2,257,199	2,241,655
	Total (b) ..	45,375,974	45,009,045	44,962,544	44,948,215	45,469,783
Average Rate per cent.		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
	Australia ..	3 14 10	3 13 0	3 12 9	3 12 11	3 12 11
	London ..	4 3 7	4 1 5	3 19 6	3 18 1	3 18 5
	New York ..	5 0 4	5 0 4	5 0 5	5 0 5	5 0 5
	Total (b) ..	3 19 5	3 17 5	3 16 6	3 16 0	3 16 1

(a) The units of currency are—

For interest payable in Australia £ (Aust.)
 For interest payable in London £ (Stg.)
 For interest payable in New York *

* Payable in terms of dollars, see note (c) on page 946.

(b) The nominal amount and average rate of interest payable taking no account of exchange.

(c) Includes contributions payable by Commonwealth and British Governments towards interest on Migration Loans.

(d) Excludes suspended interest on War Debt due to the Government of the United Kingdom.

(v) *Short-term Debt. (a) Amount.* Particulars of the short-term debt (Treasury Bills and Debentures) of the Commonwealth and States in London and in Australia at intervals from 30th June, 1931, to 30th June, 1938, are given in the following table:—

COMMONWEALTH AND STATES.—SHORT TERM DEBT.(a)

Date.	Maturing in London.			Maturing in Australia.		
	Common-wealth.	States.	Total.	Common-wealth.	States.	Total.
	£'000 Stg.	£'000 Stg.	£'000 Stg.	£'000 Aust.	£'000 Aust.	£'000 Aust.
30th June, 1931 ..	10,220	27,855	38,075	5,066	15,554	20,620
30th June, 1932 ..	10,220	27,105	37,325	6,330	38,660	44,990
30th June, 1933 ..	10,220	23,905	34,125	3,500	45,375	48,875
30th June, 1934 ..	10,220	23,405	33,625	..	48,409	48,409
30th September, 1934 ..	10,220	23,405	33,625	..	51,033	51,033
31st December, 1934 ..	10,220	23,405	33,625	..	51,008	51,008
31st March, 1935 ..	10,220	23,405	33,625	..	48,888	48,888
30th June, 1935 ..	10,220	23,405	33,625	..	45,124	45,124
30th September, 1935 ..	10,220	23,155	33,375	..	47,800	47,800
31st December, 1935 ..	10,220	23,155	33,375	..	51,080	51,080
31st March, 1936 ..	10,220	23,155	33,375	..	48,750	48,750
30th June, 1936 ..	10,220	23,155	33,375	..	47,013	47,013
30th September, 1936 ..	10,220	23,155	33,375	..	48,778	48,778
31st December, 1936 ..	9,720	23,155	32,875	..	53,584	53,584
31st March, 1937 ..	9,720	23,155	32,875	..	52,854	52,854
30th June, 1937 ..	9,720	23,155	32,875	..	46,408	46,408
30th September, 1937 ..	9,720	23,155	32,875	..	50,023	50,023
31st December, 1937 ..	9,470	23,155	32,625	..	54,808	54,808
31st March, 1938 ..	10,120	23,155	33,275	..	52,968	52,968
30th June, 1938 ..	5,495	23,155	28,650	..	46,508	46,508

(a) Exclusive of overdrafts.

The foregoing figures do not include overdrafts. At the 30th June, 1930, approximately £29,000,000 of London unfunded debt was on account of overdrafts. This amount was covered by the issue of Treasury Bills and Debentures during 1930-31, and at the 30th June, 1931, London overdrafts amounted to £5,000,000.

(b) *Interest Rates. (i) London.* The rates of interest payable on Treasury Bills and Debentures in London during the period 1930-31 to 1937-38 were as follows:—

Year.	Minimum Rate.		Maximum Rate.	
	%		%	
1930-31	3		5	
1931-32	3		6½	
1932-33	2		4½	
1933-34	2		3	
1934-35	2		3	
1935-36	2		2½	
1936-37	2		2½	
1937-38	2		2½	

(ii) *Australia.* The Treasury Bills rates in Australia were as follows:—

5½ per cent. from 10th October, 1929.

6 per cent. from 1st October, 1930.

4 per cent. from 31st July, 1931.

3½ per cent. from 27th October, 1932.

3¼ per cent. from 21st January, 1933.

2¾ per cent. from 18th February, 1933.

2½ per cent. from 1st June, 1933.

2¼ per cent. from 1st April, 1934.

2 per cent. from 15th October, 1934.

1½ per cent. from 1st January, 1935.

(vi) *Debts of States and Municipal and Semi-Governmental Bodies.* For the reasons indicated in par. 2, Division II. § 4 (page 936) direct comparisons of the debts of the several States should be made with caution. The table following shows for 1936-37 particulars of the debts of the States and the debts due to the Public Creditor by Municipal and Semi-Governmental bodies in each State. This affords a more reliable comparison, but as complete records are not available over a long period, particulars showing comparisons of the growth of the debt cannot be made. For further particulars relating to the Debt of Local and Semi-Governmental Authorities see Finance Bulletin No. 29.

PUBLIC DEBT.—STATES, MUNICIPAL AND SEMI-GOVERNMENTAL BODIES.
1935-36 and 1936-37.

State.	Debts of the States. (a)	Due to Public Creditor.(b)		Grand Total.
		Municipal.	Semi-Governmental Bodies.	
	£'000.	£'000.	£'000.	£'000.
New South Wales	359,292	31,096	45,530	426,918
Victoria	176,597	11,963	38,021	226,581
Queensland	124,899	16,837	1,931	143,667
South Australia	106,594	859	863	108,316
Western Australia	92,333	3,977	107	95,517
Tasmania	25,247	2,717	460	28,424
Total. All States { 1936-37	875,962	66,549	(c) 86,912	1,029,423
{ 1935-36	864,742	66,800	70,003	1,001,545

DEBT PER HEAD OF POPULATION.(d)

	£	£	£	£
New South Wales	130.1	11.5	16.9	158.5
Victoria	95.2	6.4	20.5	122.1
Queensland	125.9	17.0	1.9	144.8
South Australia	181.1	1.4	1.5	184.0
Western Australia	203.3	6.8	0.2	210.3
Tasmania	108.5	11.7	2.0	122.2
Total, All States { 1936-37	128.5	9.8	12.7	151.0
{ 1935-36	127.9	9.9	11.7	149.5

(a) Includes amounts due by Municipal and Semi-Governmental bodies. (b) Excluding debts due to Central Government.

(c) The increase is due partly to the inclusion of particulars for several authorities, details for which were not previously collected. (d) At 30th June, 1936 and 1937.

4. **The Australian Loan Council.**—The Australian Loan Council was created during 1923-24 as the result of representations made by the Commonwealth Government, and had for its object the prevention of competition in the loan market. Until July, 1925, the Council consisted of representatives (usually the Treasurers) of the Commonwealth and of each of the States; in August of that year the representative of New South Wales withdrew from the Council, but rejoined at the end of 1927.

Prior to the passing of the Financial Agreement Validation Act 1929, the Australian Loan Council functioned on a purely voluntary basis. The Act referred to embodies the agreement between the Commonwealth and State Governments, and invests the Loan Council with full constitutional authority. Details of the constitution of the Loan Council are included in Part I., section 3 of the Financial Agreement and may be found in Chapter I., pp. 23-25 of this volume.

The present objects and powers of the Loan Council as a constitutional body are set out in the Financial Agreement Act.

CHAPTER XXVIII.

MISCELLANEOUS.

§ 1. Patents, Trade Marks and Designs.

1. **Patents.**—(i) *General.* The granting of patents is regulated by the Commonwealth Patents Act 1903–1935, which, in regard to principle and practice, has the same general foundation as the Imperial Statutes, modified to suit Australian conditions. The Act is administered by a Commissioner of Patents. Fees totalling £10 are sufficient to obtain letters patent for the Commonwealth of Australia and the Territories of Papua, New Guinea and Norfolk Island. A renewal fee of £5 is payable before the expiration of the seventh year of the patent on all patents granted on applications lodged prior to 2nd February, 1931. On patents granted on applications made on or after the 2nd February, 1931, renewal fees are payable as follows:—£1 before the expiration of the fifth year and an amount progressively increasing by ten shillings before the expiration of each subsequent year up to the fifteenth, when the fee becomes £6. If a renewal fee is not paid when it becomes due, an extension of time up to twelve months may be granted on grounds specified in the Act, and subject to the payment of prescribed fees.

(ii) *Summary.* The number of separate inventions in respect of which applications were filed during the years 1933 to 1937 is given in the following table, which also shows the number of letters patent sealed in each year:—

PATENTS, AUSTRALIA.—SUMMARY.

Particulars.	1933.	1934.	1935.	1936.	1937.
No. of applications	5,040	4,984	5,110	5,484	5,585
No. of applications accompanied by provisional specifications	3,511	3,286	3,238	2,384	3,094
Letters patent sealed during each year	1,701	2,063	2,129	2,429	2,642

(iii) *Revenue.* The revenue of the Commonwealth Patent Office during the years 1933 to 1937 is shown hereunder:—

PATENTS, AUSTRALIA.—REVENUE.

Particulars.	1933.	1934.	1935.	1936.	1937.
	£	£	£	£	£
Fees collected under Patents Act	30,121	33,488	35,980	37,515	42,614
Receipts from publications	1,311	1,359	1,532	1,509	1,870
Total	31,432	34,847	37,512	39,084	44,484

2. **Trade Marks and Designs.**—(i) *Trade Marks.* Under the Trade Marks Act 1905 the Commissioner of Patents is also Registrar of Trade Marks. This Act has been amended from time to time, the last amendment having been made in 1930. Special

provisions for the registration of a "Commonwealth Trade Mark" are contained in the Act of 1905, and are applicable to all goods included in or specified by a resolution passed by both Houses of Parliament that the conditions as to remuneration of labour in connexion with the manufacture of such goods are fair and reasonable.

(ii) *Designs.* The Designs Act 1906, as amended by the Patents, Designs and Trade Marks Act 1910 and the Designs Acts 1912, 1932, 1933 and 1934, is now cited as the Designs Act 1906-1934. Under this Act a Commonwealth Designs Office has been established, and the Commissioner of Patents appointed "Registrar of Designs."

(iii) *Summary.* The following table shows the applications for trade marks and designs received and registered during the years 1933 to 1937 :—

TRADE MARKS AND DESIGNS, AUSTRALIA.—SUMMARY.

Applications.			1933.	1934.	1935.	1936.	1937.
RECEIVED.							
Trade Marks	..	..	1,905	2,087	2,071	2,215	2,189
Designs	..	..	646	1,670	2,319	1,494	1,190
REGISTERED.							
Trade Marks	..	..	1,316	1,268	1,349	1,664	1,372
Designs	..	..	497	1,465	2,085	1,546	971

(iv) *Revenue.* The revenue of the Trade Marks and Designs Office during the years 1933 to 1937 is given hereunder :—

TRADE MARKS AND DESIGNS, AUSTRALIA.—REVENUE.

Particulars.	1933.			1934.			1935.			1936.			1937.		
	Trade Marks.	Designs.	Publications.	Trade Marks.	Designs.	Publications.	Trade Marks.	Designs.	Publications.	Trade Marks.	Designs.	Publications.	Trade Marks.	Designs.	Publications.
Fees collected under Commonwealth Acts	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£
..	12,720	814	13	20,469	1,052	17	15,580	1,053	13	16,434	1,110	19	16,580	1,006	18

No fees in respect of Trade Marks have been collected under State Acts since the year 1922.

§ 2. Copyright.

1. *Legislation.*—Copyright is regulated by the Commonwealth Copyright Act 1912-1935 wherein, subject to modifications relating to procedure and remedies, the British Copyright Act of 1911 has been adopted and scheduled to the Australian law.

Reciprocal protection of unpublished works was extended in 1918 to citizens of Australia and of the United States of America under which copyright may be secured in the latter country by registration at the Library of Congress, Washington. The Commonwealth Government promulgated a further Order in Council which came into

operation on the 1st February, 1923, and extended the provisions of the Copyright Act to the foreign countries of the Copyright Union, subject to the observance of the conditions contained therein.

2. **Applications and Registrations.**—The following table shows under the various headings the number of applications for copyright received and registered, and the total revenue obtained for the years 1933 to 1937 :—

COPYRIGHT, AUSTRALIA.—SUMMARY.

Particulars.	1933.	1934.	1935.	1936.	1937.
Applications received—					
Literary	1,463	1,611	1,408	1,463	1,442
Artistic	90	108	78	86	92
International	2	3	2	3	2
Applications registered—					
Literary	1,350	1,514	1,346	1,389	1,367
Artistic	72	91	69	78	74
International	..	..	..	1	1
Revenue £	382	433	378	388	384

§ 3. Local Option and Reduction of Licences.

Local option concerning the sale of fermented and spirituous liquors is in force in the States of South Australia and Tasmania. In Victoria, Queensland and Western Australia State wide polls have superseded the local polls, while in New South Wales the taking of local option polls has been suspended since 1913, though a special State wide referendum was taken in 1928 on the question of State wide prohibition with compensation. At the poll held in Victoria on 8th October, 1938, the voting was as follows :—

For abolition of licences	..	..	..	368,676
Against abolition of licences	..	..	..	721,704
Informal	..	..	..	7,648

The percentage of electors who voted was 95.38.

In all States other than South Australia a maximum number is established above which licences shall not be increased except under certain specified conditions (the principal case being the greater demand for service of a considerably increased population). Licences Reduction Boards are in operation in New South Wales and Victoria and in all other States machinery exists for the reduction of licences where it seems desirable or where there is a local option vote in favour of the reduction of licences.

In earlier issues of the Year Book (see No. 22, pp. 1005–1008), details, by States, were published of polls taken and of the operations of the Licences Reduction Boards.

§ 4. Lord Howe Island.

Lord Howe Island is situated in latitude 31° 30' south, longitude 159° 5' east, about 430 miles north-east of Sydney, and has an area of 3,220 acres. The climate is mild and the rainfall abundant, but on account of the rocky formation of its surface only about 300 acres are suitable for cultivation, most of which are devoted to the production of Kentia Palm Seed. The land belongs to the Crown and is occupied rent-free on sufferance.

Discovered in 1788 the Island was first settled by a small party of Maoris in 1853 : afterwards a colony was settled from Sydney. Constitutionally the Island is a dependency of New South Wales and is included in King, one of the electorates of Sydney. A Board of Control at Sydney manages the affairs of the Island and supervises the palm seed industry. At the Census of 30th June, 1933, the population was 161.

§ 5. Commonwealth Council for Scientific and Industrial Research.

1. **General.**—By the Science and Industry Research Act 1920-37, the previously existing Commonwealth Institute of Science and Industry was reorganized under the title of the Council for Scientific and Industrial Research. An account of the organization and work of the former Institute was given in earlier issues of the Official Year Book. (See No. 18, p. 1062.)

2. **Science and Industry Research Act 1920-37.**—This Act provides for a Council, consisting of—

- (a) Three members nominated by the Commonwealth Government ;
- (b) the Chairman of each State Committee constituted under the Act ; and
- (c) such other members as the Council, with the consent of the Minister, co-opts by reason of their scientific knowledge.

The three Commonwealth nominees form an Executive Committee which may exercise, between meetings of the Council, all the powers and functions of the Council, of which the principal are as follows :—(a) To initiate and carry out scientific researches in connexion with primary or secondary industries in the Commonwealth ; (b) to train research workers and to establish industrial research studentships and fellowships ; (c) to make grants in aid of pure scientific research ; (d) to establish industrial research associations in any industries ; (e) to test and standardize scientific apparatus and instruments ; (f) to establish a Bureau of Information ; and (g) to act as a means of liaison between the Commonwealth and other countries in matters of scientific research.

State Committees, whose main function is to advise the Council as to matters that may affect their respective States, have been constituted in accordance with prescribed regulations.

3. **Science and Industry Endowment Act 1926.**—Under this Act, the Government has established a fund of £100,000, the income from which is to be used to provide assistance (a) to persons engaged in scientific research, and (b) in the training of students in scientific research. Provision is made for gifts or bequests to be made to the fund, which is controlled by a trust consisting of the three Commonwealth nominees on the Council. In accordance with the Act, arrangements have been made to send a number of qualified graduates abroad for training in special fields of work.

4. **Work of the Council.**—The full Council held its first meeting in June, 1926, and thereafter at about half-yearly intervals. It has adopted a policy of placing each of its major fields of related researches under the direction of an officer having a standing at least as high as, if not higher than, that of a University Professor.

The main branches of work of the Council at present are (i) plant problems, (ii) soil problems, (iii) entomological problems, (iv) animal health and nutrition problems, (v) forest products, (vi) food preservation and transport, (vii) radio research, (viii) ore-dressing (gold) and mineragraphic investigations, and (ix) fisheries investigations. Successful results have been obtained in a number of directions, particularly in regard to bitter pit in apples, spotted wilt in tomatoes, water blister of pineapples, blue mould of tobacco, the cultivation and drying of vine fruits, the cultivation of citrus fruits, contagious pleuro-pneumonia of cattle, the feeding of sheep for increased wool production, black disease, infectious enterotoxæmia, pulpy kidney and caseous lymphadenitis of sheep, internal parasites, coast disease of sheep, soil surveys, paper making from Australian timbers, timber seasoning and preservation, and the preservation and transport of bananas, oranges, chilled beef and other food-stuffs. The work of the Council has in the past been directed almost exclusively to the solution of problems affecting primary industries. The Commonwealth Government has decided to extend the activities of the Council so as to enable it to enter the field of secondary industrial research. Action is accordingly being taken for the erection of a National Standards Laboratory in Sydney, and an Aeronautical Research Laboratory in Melbourne. The nucleus of an Information Section has already been established

at the Council's head offices, Melbourne, and plans are being developed for the initiation of research into problems affecting secondary industries. More detailed information concerning the work of the Council may be found in Year Book No. 22, pp. 1009 and 1010.

§ 6. Australian Institute of Anatomy.

1. *Foundation of Institute.*—The Australian Institute of Anatomy, situated in Canberra, occupies a monumental building erected by the Federal Government under the Zoological Museum Agreement Act of 1924. Prior to the passing of this Act, the Federal Government had expressed regret that the Australian Nation possessed neither a collection of specimens of the unique and fast disappearing fauna of Australia, nor a Museum in which such specimens could be preserved for future generations. Comparative anatomy is the basis of medical science, and while the importance of a study of Australian animals in the solution of various medical problems had for years been recognized by other countries and steps taken by them to procure specimens for their museums, national effort in this direction was neglected in Australia. The late Sir Colin MacKenzie, the first Director of the Institute of Anatomy, however, very kindly presented to the Federal Government his entire private collection, and this magnificent gift was acquired and provision was made for its proper housing under special legislation by the Federal Government.

2. *Additions to Original Collection.*—In addition to the original collection, which has been greatly augmented, the following free gifts have been made to the Australian Nation, and are on view in the Institute:—

- (1) *Horne-Bowie Collection.*—Dealing with the life of Central Australian aborigines, and throwing valuable light on the psychology of this Stone Age people.
- (2) *Burrell Collection.*—This deals with the life history of the platypus, and is unique in the world. The platypus is the most primitive mammal known to science, and is the link between the bird, the reptile and the mammal.
- (3) *Milne Collection.*—This is an anthropological and ethnological collection dealing with the aborigines of New South Wales, and contains many valuable and now unobtainable native weapons and implements.
- (4) *Murray Black Collection* of anatomical material representative of the aborigines of Southern Victoria and the River Murray.
- (5) *Nankivell Collection*, illustrating the anatomy of the aborigines of the Murray Valley.
- (6) *Harvard University Collection.*—This includes a collection of specimens from the Harvard University, U.S.A., representing a carefully worked out epitome of archaeology of the United States, and, together with two rare skeletons of primitive North American Indians, was a goodwill gift from the University to the Institute of Anatomy.
- (7) *The Sir Hubert Murray Collection.*—The ethnological and osteological collection of Sir Hubert Murray, Lieutenant-Governor of Papua. This deals especially with the anthropology of Papua.
- (8) *The Rabaul Ethnological Collection.*—This concerns chiefly the Ethnology of the Mandated Territory of New Guinea.
- (9) *The Basedow Collection.*—This collection has been recently purchased by the Commonwealth Government. It deals especially with the anthropology of Central and Northern Australia and was assembled, after many years of research, by the late Dr. Herbert Basedow of Adelaide, who was formerly Protector of Aborigines.
- (10) Many hundreds of specimens and books received from numerous interested scientists, the most outstanding being those from Mr. E. Hill, of Nagambie, Victoria; Mrs. Harry Burrell, New South Wales; and medical books for the Library from the estates of the late Drs. Molloy, David Grant and Robert Stirling.

3. **Endowments for Orations and Lectures.**—In addition to the aforementioned donations of material, there have been several endowments for Orations and Lectures as follows :—

- (1) *The Halford Oration.*—Endowed with a gift of £1,000 by the family of the late Professor G. B. Halford, founder of the first medical school in the Southern Hemisphere. The interest on this amount is given to a prominent scientist to deliver an oration on a subject suggested by the life and work of the late G. B. Halford.
- (2) *The Anne MacKenzie Oration.*—Founded with a gift of £1,000 by the late Sir Colin MacKenzie, in memory of his mother. The orator receives the annual interest for delivering an oration on any phase of "Preventive Medicine".
- (3) *The Dr. G. E. Morrison Memorial Lecture on Ethnology.*—Founded by Chinese residents in Australia, in memory of a great Australian who rendered important services to China.
- (4) *The Kendall Lecture in Veterinary Science.*—Endowed by the sons of the late Dr. W. T. Kendall, who was the founder of the first Veterinary School in the Southern Hemisphere.
- (5) *The Charles Mackay Lecture on Medical History.*—Endowed by Miss C. MacKenzie with a gift of £607 as a memorial to her grandfather, an educationalist, who arrived in Melbourne in 1852 and died at Kilmore, Victoria.
- (6) *The Cilento Medal.*—This bronze medal has been endowed in perpetuity by Sir Raphael Cilento, Director-General of Health for Queensland, to be awarded annually to the scientist deemed to have accomplished the best practical work for the furtherance of Tropical Hygiene and Native Welfare in Australia.

4. **Ultimate Scope of the Institute.**—The Institute of Anatomy may be regarded as the first unit of a National University of Australia, and has already become the most important centre in the Southern Hemisphere for the study of comparative anatomy and of its application to human health and disease. Research work in many branches of this subject is being carried out, and an extensive collection of material for the use of future generations is being catalogued. The microscopic specimens of Australian fauna number many thousands, and are unique in the world. They represent normal mammalian tissues unaffected by disease or domestication, and with these, human tissues such as those affected with cancer can be compared. The building is used to a large extent for educational purposes. From 1931 to 1935 all the University College lectures were given there. Public lectures of an educational nature are delivered in the lecture theatre, and many conferences dealing with Commonwealth health problems are held in the Institute building. The general public is admitted to the two great Museums of Osteology and Applied Anatomy, and large numbers take advantage of this concession.

§ 7. The Commonwealth Solar Observatory.

1. **Reasons for Foundation.**—The Commonwealth Solar Observatory was established for the study of solar phenomena, for allied stellar and spectroscopic research, and for the investigation of associated terrestrial phenomena. It is so situated to complete the chain of existing astrophysical observatories round the globe separated by 90 degrees of longitude. In addition to advancing the knowledge of the universe and the mode of its development, it is hoped that the eventual discovery of the true relation between solar and terrestrial phenomena may lead to results which will prove of direct value to the country.

2. **History of Inauguration.**—A short account of the steps leading up to the establishment of the Observatory will be found in Official Year Book No. 19, p. 979.

3. **Site of the Observatory.**—The site selected for the observatory is on Mount Stromlo, a ridge of hills about 7 miles west of Canberra. The highest point is 2,560 feet above sea level, or about 700 feet above the general level of the Australian Capital City.

4. **Equipment.**—The bulk of the telescopic equipment is due to the generosity of supporters of the movement in England and Australia. The gifts include a 6-in. Grubb refracting telescope presented by the late W. E. Wilson, F.R.S., and Sir Howard Grubb, F.R.S., trustees of the late Lord Farnham; a 9-in. Grubb refractor with a 6-in. Dallmeyer lens presented by the late Mr. James Oddie, of Ballarat; while Mr. J. H. Reynolds of Birmingham presented a large reflecting telescope with a mirror 30 inches in diameter. A sun telescope including an 18-in. cœlostast has been installed, and further additions include a spectroheliometer, cosmic ray apparatus, radio research equipment and spectroscopes for the examination of spectra in the infra-red, violet and ultra-violet regions. Donations amounting to over £2,500 have been received, and form the nucleus of a Foundation and Endowment Fund.

5. **Observational Work.**—The observational work embraces the following:—(a) solar research; (b) stellar research; (c) spectroscopic researches; (d) atmospheric electricity; (e) cosmic radiation; (f) radio research; (g) ozone content of the atmosphere; (h) luminosity of the night sky; and (i) meteorological observations. A more detailed account of the observational work cannot, owing to limits of space, be published in this issue, but may be found in earlier issues (see No. 22, p. 1011).

§ 8. Standards Association of Australia.

This Association was established under the aegis of the Commonwealth and State Governments for the promotion of standardization and simplified practice.

In addition to the Council and Standing and Organization Committees, the following Sectional Committees have been appointed to formulate Australian standard specifications and codes:—A.—*Safety Codes Group*—(1) Boiler Regulations (including Gas Cylinders); (2) Concrete and Reinforced Concrete Structures; (3) Cranes and Hoists; (4) Electrical Wiring Rules; (5) Lift Installations; (6) Pump Tests; (7) Refrigeration; (8) Steel Frame Structures; (9) Welding; (10) Fireproof Construction; (11) Building By-laws; (12) Electrical Service Rules; (13) Handling and Use of Explosives; (14) Air lock Operation; (15) Street Lighting; (16) X-ray Installations; (17) Interior Illumination of Buildings. B.—*General Technical Standard Group*—(1) Bore Casing; (2) Building Materials; (3) Calcium Carbide; (4) Cement; (5) Coal—Sampling and Analysis; (6) Colliery Equipment; (7) Provisional Electrical Approval Standards; (8) Electrical; (9) Firebricks; (10) Locomotive and Railway Rolling-stock; (11) Lubricants; (12) Machine Belting; (13) Machine Parts; (14) Non-ferrous Metals; (15) Paint and Varnish; (16) Pipes and Plumbing; (17) Railway Permanent Way Materials; (18) Roadmaking Materials; (19) Structural Steel; (20) Testing, Weighing and Gauging; (21) Timber; (22) Tramway Rails; (23) Typography; (24) Galvanizing and Galvanized Products; (25) Roadmaking Machinery; (26) Sugar Mill Machinery; (27) Creosote; (28) Safety Glass for Automobiles; (29) Agricultural Implement Parts; (30) Metal Windows. C.—*Co-ordinating Committees*—(1) Concrete Products; (2) Ferrous Metals; (3) Non-ferrous Metals. D.—*Commercial Standards Division Committees*—(1) Building Materials Classification; (2) Three-ply Wood Panels for Use in Stock Door Manufacture; (3) Institutional Supplies and Co-ordinated Purchasing (Hospitals, Asylums and other Public Institutions); (4) General Conditions of Contract; (5) Purified Feathers; (6) Commercial Paper Sizes; (7) Road Gully Gratings; (8) Street Name Plates and Building Number Plates; (9) Sheet Metal Guttering, Ridging and Downpiping; (10) Laminated Steel Springs for Motor Cars; (11) Shellgrit for Poultry; (12) Road Signs and Traffic Signals.

A Power Survey Committee to deal with the collection of data and the framing of recommendations for assistance in the development and co-ordination of power schemes has also been appointed.

The association administers the Australian National Committees of the International Electro-technical Commission, the World Power Conference and the International Commission on Large Dams.

The objects of the Association include the following:—To prepare and promote the general adoption of standards in connexion with structures, materials, etc.; to co-ordinate the efforts of producers and users for the improvement of materials, processes and methods; and to procure the recognition of the Association in any foreign country.

The sole executive authority of the Association is vested in the Council, which undertakes the whole of the organization of the movement, the raising of the necessary funds, the controlling of the expenditure, the arranging of the subjects to be dealt with by the various sectional and sub-committees, and the authority for the issue of all the reports and specifications.

The Association was established in July, 1929, by amalgamation of the Australian Commonwealth Engineering Standards Association and the Australian Commonwealth Association of Simplified Practice.

§ 9. Valuation of Australian Production.

I. Value of Production.—(i) *Net Values.* The annual value of production was defined by the Conference of Statisticians in 1924 as the sum available each year for distribution among those concerned in industry, i.e., workers, proprietors (including landlords) and providers of capital. In the past the want of complete uniformity in the methods of compilation and presentation of statistics of recorded production rendered it very difficult to make a satisfactory valuation of the various elements of production in accordance with the above definition. At the conference of 1924 and those subsequently held the method of determining the gross value, marketing costs and production costs was laid down into a definite procedure. This arrangement enabled the State Statisticians to compile the various elements of costs on a uniform basis which permitted the aggregation of the figures for each State to obtain a total for Australia.

The figures shown in the following table have been compiled by the Statisticians of the several States and, to a large extent, are based upon actual records. Where these have not been possible careful estimates have been made from the best available data. Absolute uniformity has not been attained in every detail but the few remaining differences of procedure are of little importance. This matter is referred to in the note at the head of the table.

Attention is directed to the fact that the value shown in the table refers only to recorded production and excludes the building and construction industry, those industrial establishments not classified as factories, and agricultural and farmyard produce obtained from areas of less than one acre.

The following is a brief explanation of the terms used in the table:—

- (a) "Gross value" is the value placed on gross production at the wholesale price realized in the principal markets. (In cases where primary products are consumed at the place of production or where they become raw material for a secondary industry, these points of consumption are presumed to be the principal markets.)
- (b) "Local value" is the gross production valued at the place of production and is ascertained by deducting marketing costs from the gross value. (Marketing costs include freight, cost of containers, commission and other charges incidental thereto.)
- (c) "Net value" represents the net return to the producer after deducting from the gross value costs of marketing and of materials used in the process of production. Materials used in the process of production include seed, fodder consumed by farm stock, manures, dips, sprays and other costs. No deduction has been made for depreciation and maintenance costs. This matter is more fully dealt with in *Production Bulletin*, No. 31, Part II., issued by this Bureau.

It should be noted that the costs of maintenance of farm buildings and fences have not been deducted from the value of production of rural industries, as particulars are not available for all States. In Queensland the costs for the pastoral industry are not as exact as might be desired, but it is hoped to bring them into line in due course. The value shown for Mines and Quarries in Tasmania is understated owing to the omission

of Quarries. This understatement, however, is more or less offset by the inclusion of production costs in Mining. As explained in the note (•) below production costs are not available for all States in respect of Fisheries, and Local Values have been used for this industry with consequent overstatement.

GROSS, LOCAL AND NET VALUE OF RECORDED PRODUCTION—AUSTRALIA, 1936-37.

Industry.	Gross Production valued at Principal Markets.	Local Value— Gross Production valued at place of Production.	Net Value of Production (without deduction of depreciation or maintenance).
	£	£	£
Agriculture	91,296,975	79,025,116	63,113,485
Pastoral	95,429,294	87,476,297	84,421,276
Dairying	36,097,428	33,738,546	27,547,062
Poultry and Bees	10,822,206	9,812,450	5,825,042
Total Rural (c)	233,645,903	210,052,409	180,906,865
Trapping	3,401,836	3,081,472	3,081,472
Forestry	8,380,565	7,503,687	7,305,921
Fisheries	1,916,059	1,638,000	(a) 1,638,000
Mines and Quarries	27,283,247	26,839,305	22,252,545
Total Non-rural	40,981,707	39,062,464	34,277,938
Total All Primary	274,627,610	249,114,873	215,184,803
Factories	(b) 177,685,141	(b) 177,685,141	177,685,141
Total All Industries	452,312,751	426,800,014	392,869,944

(a) Local value. Production costs not available for all States. (b) Net value. (c) The term "Rural" is used to cover those industries ordinarily considered to be farm industries.

The net value of production in each State is shown hereunder:—

NET (a) VALUE OF RECORDED PRODUCTION IN STATES, 1936-37.

Industry.	New South Wales.	Victoria.	Queens- land.	South Australia.	Western Australia.	Tasmania.	Total.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
Agriculture	19,364	16,356	10,706	9,058	5,921	1,709	63,114
Pastoral	39,300	19,502	14,112	5,217	4,597	1,693	84,421
Dairying	9,128	10,778	4,957	1,588	554	542	27,547
Poultry and Bees	2,229	2,347	327	272	309	341	5,825
Total Rural (net)	70,021	48,983	30,102	16,135	11,381	4,285	180,907
Trapping	1,450	882	333	86	181	149	3,081
Forestry	2,096	732	2,186	571	1,314	407	7,306
Fisheries (local)	650	162	336	185	224	81	1,638
Mines and Quarries	8,350	1,594	2,408	2,436	5,803	1,661	22,252
Total Non-rural (local and net)	12,546	3,370	5,263	3,278	7,522	2,298	34,277
Total All Primary	82,567	52,353	35,365	19,413	18,903	6,583	215,184
Factories	76,754	58,712	17,185	12,272	7,947	4,815	177,685
Total All In- dustries	159,321	111,065	52,550	31,685	26,850	11,398	392,869

(a) See letterpress at head of previous table.

**NET (a) VALUE OF RECORDED PRODUCTION PER HEAD OF MEAN POPULATION,
1936-37.**

Industry.	New South Wales.	Victoria.	Q'land.	South Australia.	Western Australia.	Tasmania.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Agriculture ..	7 4 6	8 16 8	10 17 7	15 7 11	13 2 0	7 7 2	9 5 6
Pastoral ..	14 13 2	10 10 7	14 6 9	8 17 4	10 3 6	7 5 9	12 8 1
Dairying ..	3 8 1	5 16 5	5 0 9	2 14 0	1 4 6	2 6 8	4 1 0
Poultry and Bees ..	0 16 8	1 5 4	0 6 8	0 9 3	0 13 8	1 9 5	0 17 1
Total Rural (net)	26 2 5	26 9 0	30 11 9	27 8 6	25 3 8	18 9 0	26 11 8
Trapping ..	0 10 10	0 9 6	0 6 9	0 3 0	0 8 0	0 12 10	0 9 0
Forestry ..	0 15 8	0 7 11	2 4 5	0 19 5	2 18 2	1 15 1	1 1 6
Fisheries (local) ..	0 4 10	0 1 9	0 6 10	0 6 3	0 9 11	0 7 0	0 4 10
Mining (local) ..	3 2 4	0 17 3	2 8 11	4 2 10	12 16 10	7 3 0	3 5 5
Total Non-rural (local and net)	4 13 8	1 16 5	5 6 11	5 11 6	16 12 11	9 17 11	5 0 9
Total All Primary (local and net) ..	30 16 1	28 5 5	35 18 8	33 0 0	41 16 7	28 6 11	31 12 5
Factories ..	28 12 8	31 14 0	17 9 3	20 17 2	17 11 9	20 14 9	26 2 3
Total All In- dustries ..	59 8 9	59 19 5	53 7 11	53 17 2	59 8 4	49 1 8	57 14 8

(a) See letterpress at head of previous Table.

(ii) *Gross Values.* The estimated gross value of production shown in the following table is a continuation of the method previously used by this Bureau. It cannot be compared with the gross values shown in the table above on account of the difference in the methods used and the change in the computing authority. It is proposed to discontinue the publication of this table once the net values have been satisfactorily established.

ESTIMATED GROSS VALUE OF PRODUCTION.—AUSTRALIA.

Year.	Agricul- ture.	Pastoral.	Dairy, Poultry, and Bee- farming.	Forestry.	Fisheries.	Mining.	Manuf- acturing.(a)	Total.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
1926-27 ..	98,295	111,716	46,980	11,046	1,744	23,939	153,634	447,354
1927-28 ..	84,328	124,554	50,261	10,339	1,842	23,015	158,563	452,001
1928-29 ..	89,440	116,733	50,717	9,449	2,168	19,539	159,759	447,805
1929-30 ..	77,109	84,503	49,398	9,103	2,268	17,912	149,184	389,537
1930-31 ..	70,800	60,400	43,067	6,188	1,825	15,361	112,904	314,200
1931-32 ..	74,489	61,540	41,478	6,033	1,670	13,352	106,456	305,018
1932-33 ..	75,562	64,851	39,622	6,791	1,679	15,583	114,136	318,224
1933-34 ..	70,731	95,613	40,306	7,985	1,620	17,068	123,355	357,218
1934-35 ..	68,887	74,556	44,763	9,221	1,635	19,949	137,638	356,349
1935-36 ..	75,388	91,286	47,533	9,737	1,687	23,248	155,891	404,770
1936-37 ..	91,403	105,499	49,886	9,760	2,005	27,381	170,811	456,745

(a) Net Values. These amounts differ from those given in the previous two tables and in Chapter XXIV., Manufacturing Industry, which include certain products included under Dairy Farming and Forestry in this table.

2. **Productive Activity.**—In previous issues an attempt was made to measure the quantity of material production by means of production price index-numbers. It was found, however, that these were not satisfactory in their application to factory production. In the absence of a satisfactory measure of the *quantity* of production, the retail price index-numbers have been applied to the value of production, in the same manner as they have been applied to nominal wages, to measure their relative purchasing power. The results may be taken to indicate the purchasing power in retail prices of the things produced, and for convenience will hereafter be called *real* production.

Two tables are given:—The first shows *real* production per head of population, but any deductions therefrom must take into account the following considerations. The production considered is material production only, and takes no account of services. As civilization advances, material production becomes less important relatively to services, and a smaller proportion of the population is engaged in such production. For example, the use of the motor car, the cinema and wireless is comparatively recent, and these employ a much larger number of people in services than in material production. Hence, material production per head of population will not measure accurately the progress of productive efficiency, but will tend to give too low a value. Unemployment, of course, will also depress it.

A better measure is afforded by *real* production per person engaged in material production. The second table attempts to give this. The result affords a better measure of productive efficiency, but does not take into account the effect of unemployment, though the index may be somewhat depressed by short time and rationing.

The two tables tell different stories. Before unemployment became severe in 1930 *real* production per head (as shown in the last two columns of the first table) had remained substantially steady with minor fluctuations since 1906. Whatever gain had been made in productive efficiency had been off-set by the gradual transfer of labour from production of goods to production of services. Coincident with the heavy increase in unemployment between the years 1930 and 1933, the maximum being reached in 1932, the index-numbers fell sharply from their normal level of about 100 to 76 ("A" Series) and 78 ("C" Series) in 1930–31. This would imply a fall in average *real* income of nearly one-fourth from the normal level, taking unemployment into account. Apart from a slight recession in 1934–35 due to a drop in wool values the index-numbers rose continuously from 1931–32 onwards; the pre-depression level was reached in 1935–36 and the peak of 1924–25 was almost equalled in 1936–37.

The index-numbers of *real* production per person engaged as given in the last two columns of the second table show, on the other hand, an appreciable upward tendency. They rose steeply during the war, as might have been expected, fell somewhat after the war and recovered again. In 1929–30 they fell substantially, due partly to the lag in the fall of retail prices. They increased during the next four years to 125 and 126 only to fall again in 1934–35 to 115 and 117 with the fall in wool prices during that year. Recovering most of this loss in 1935–36 they advanced to new records of 128 and 134 in 1936–37. This high figure for *real* production per person engaged implies a high *real* wage for those in employment and is consistent with available information concerning rates of *effective* or *real* wages, which more than maintained in recent years the high level reached in the years 1927 to 1929.

The data for the second table are not complete. The numbers engaged in timber-getting are not accurately known, so that the value of production on this account, and the corresponding persons engaged, are both left out of account. Further, the information concerning women engaged in primary production is unsatisfactory, and only males are counted in primary industries. In manufacturing, the numbers are converted into equivalent male workers on the basis of relative wages for male and female workers. The column headed "numbers engaged" is, therefore, rather an index than the absolute number of individuals occupied in material production, but, as an index, it should be accurate enough to give a satisfactory measure of production per person engaged.

PRODUCTION PER HEAD OF POPULATION.—AUSTRALIA.

Year.	Gross Value of Material Production.			Retail Price Index-numbers. (a) 1911 = 1,000.		Real Production per head of population (1911 = 100) measured in purchasing power over regimen of—	
	Total.	Per head of population.		"A" Series.	"C" Series.	"A" Series.	"C" Series.
		Actual.	Index-Number. 1911 = 100.				
	£'000.	£					
1906 ..	147,043	35.9	87	902	..	97	..
1911 ..	188,359	41.2	100	1,000	(1,000)	100	100
1913 ..	220,884	45.1	110	1,104	..	99	..
1914 ..	213,552	43.0	104	1,140	1,140	92	92
1916 ..	261,996	53.3	129	1,324	1,319	98	98
1917 ..	279,418	56.1	136	1,318	1,406	103	97
1918 ..	291,875	57.5	140	1,362	1,501	102	93
1919-20 ..	343,697	64.9	158	1,624	1,695	97	93
1920-21 ..	390,644	72.2	175	1,821	1,935	96	91
1921-22 ..	344,426	62.5	152	1,600	1,680	95	90
1922-23 ..	379,445	67.4	163	1,642	1,619	100	101
1923-24 ..	400,276	69.6	169	1,714	1,664	99	102
1924-25 ..	454,380	77.3	188	1,690	1,637	111	115
1925-26 ..	431,670	72.0	175	1,766	1,673	99	104
1926-27 ..	447,354	73.1	178	1,763	1,663	101	107
1927-28 ..	452,901	72.5	176	1,776	1,676	99	105
1928-29 ..	447,805	70.5	171	1,785	1,693	96	101
1929-30 ..	389,537	60.6	147	1,783	1,688	83	87
1930-31 ..	319,706	49.2	120	1,574	1,528	76	78
1931-32 ..	305,018	46.5	113	1,432	1,406	79	80
1932-33 ..	318,224	48.2	117	1,358	1,344	86	87
1933-34 ..	357,218	53.7	130	1,365	1,344	96	97
1934-35 ..	350,349	53.2	129	1,399	1,366	92	95
1935-36 ..	404,770	60.0	146	1,437	1,392	101	105
1936-37 ..	456,745	67.1	163	1,489	1,431	110	114

(a) For explanation of "A" and "C" Series see Chapter XVII.

PRODUCTION PER PERSON ENGAGED.—AUSTRALIA.

Year.	Number engaged in Material Production.(a)	Value of Material Production per person engaged in production. (a)		"Real" Production per person engaged (1911 = 100) measured in retail purchasing power over regimen of—(b)	
		Actual.	Index-number, 1911 = 100.	"A" Series.	"C" Series.
	('000)	£			
1906 ..	659	223	87	96	..
1911 ..	728	257	100	100	100
1913 ..	756	290	113	102	..
1914 ..	733	289	113	99	99
1916 ..	685	381	148	112	112
1917 ..	683	408	159	120	113
1918 ..	685	424	165	121	110
1919-20 ..	743	460	179	110	106
1920-21 ..	760	510	199	109	103
1921-22 ..	775	441	172	107	102
1922-23 ..	793	475	185	113	114
1923-24 ..	810	491	191	111	115
1924-25 ..	826	547	213	126	130
1925-26 ..	831	515	201	114	120
1926-27 ..	841	527	205	116	123
1927-28 ..	838	536	209	118	125
1928-29 ..	830	536	209	117	123
1929-30 ..	803	482	187	105	110
1930-31 ..	728	431	168	108	112
1931-32 ..	741	411	160	112	114
1932-33 ..	781	407	158	117	118
1933-34 ..	815	437	170	125	126
1934-35 ..	862	412	160	115	117
1935-36 ..	901	448	174	121	125
1936-37 ..	930	491	191	128	134

(a) See explanatory remarks above tables.

(b) See note (a) to previous table.

§ 10. Film Censorship.

1. **Legislation.**—The censorship of imported films derives its authority from section 52 (g) of the Customs Act, which gives power to prohibit the importation of goods. Under this section regulations have been issued prohibiting the importation of films except under certain conditions and with the consent of the Minister. The regulations provide, *inter alia*, that no film shall be registered which in the opinion of the censor is (a) blasphemous, indecent or obscene; (b) likely to be injurious to morality, or to encourage or incite to crime; (c) likely to be offensive to the people of any friendly nation; (d) likely to be offensive to the people of the British Empire; or (e) depicts any matter the exhibition of which is undesirable in the public interest.

The regulations governing the exportation of Australian-made films are similar, with the addition that no film may be exported which in the opinion of the Censorship is likely to prove detrimental or prejudicial to the Commonwealth of Australia.

The Censorship consists of a Censorship Board of three persons and an Appeal Censor, the head-quarters being in Sydney. There is also a right of appeal to the Minister.

In addition to the censorship of moving pictures, the Censorship may refuse to admit into Australia any advertising matter proposed to be used in connexion with the exhibition of any film. Such control does not, however, extend to locally-produced publicity.

2. **Imports of Films.**—Imported films dealt with by the Censorship for the year 1937 were as follows:—1,538 films of 4,150,256 feet passed without eliminations, 157 films of 750,500 feet passed after eliminations, and 17 films of 87,861 feet rejected in first instance, making a total of 1,712 films of 4,988,617 feet (one copy). The countries of origin were as follows:—United States of America, 1,152 films of 3,579,495 feet; United Kingdom, 459 films of 1,302,851 feet; and 101 films of 106,271 feet from other countries.

The above figures relate to standard size films (35 millimetres). There were also imported during 1937, 1,189 miniature films (16, 9.5, and 8 millimetres) of 526,556 feet.

3. **Exports of Films.**—The number of films exported for the year 1937 was 1,044 of 1,263,843 feet (one copy), of which 903 films of 1,145,557 feet were sent to places in the British Empire including Mandated Territories.

§ 11. Marketing of Australian Commodities.

1. **Introduction.**—Particulars in respect of the various Commonwealth Acts and Regulations together with the operations of the Boards or Councils appointed to assist or control the marketing of Australian commodities are set out below.

2. **Dairy Produce.**—(i) *The Dairy Produce Export Control Act 1924-1936.* Introduced at the request of the dairying industry this Act was passed by the Commonwealth Parliament with the object of organizing the overseas marketing of Australian dairy produce. A Dairy Produce Control Board was appointed and was in existence from 1924 to 1935. It dealt with matters relating to the organization and supervision of overseas marketing of dairy produce. In the course of its functions the Board regulated shipments to ensure regularity of supply in the London market, controlled forward selling, obtained reductions in overseas freights and insurance rates, and participated in an advertising campaign in the United Kingdom.

Prior to the appointment of the Dairy Produce Control Board a voluntary body—the Australian Dairy Council—was established to advise and make recommendations to the Governments on problems connected with the production, manufacture and quality of dairy produce, pasture improvement, and diseases of dairy cattle.

Following a recommendation by the Australian Agricultural Council the functions of these bodies were combined by an Amending Act of 1935 under the Australian Dairy Produce Board and provision was made for the allocation of money from the Board's funds for research and investigation into pastures, diseases of dairy cattle, and the quality of butter.

(ii) *The Dairy Produce Export Charges Act 1924-1929.* This Act provides for the imposition of a levy on all butter and cheese exported from the Commonwealth to cover the administrative expenses of the Board and for advertising and other purposes. The rate of the levy is fixed by regulation:

(iii) *The Dairy Produce Act 1933-1935.* In § 1 par. 3 of Chapter XXI. reference is made to the voluntary and compulsory plans introduced for the purpose of stabilizing the prices of dairy produce in Australia. Under State legislation regulating authorities fixed the proportion of the States' output to be sold within the respective States, and the Dairy Produce Act was passed by the Commonwealth Parliament to protect these "quotas" from the effects of interstate competition. A recent decision of the Privy Council, however, held that the Commonwealth had no power under its Constitution to control interstate trade and the Commonwealth legislation is therefore inoperative. The industry is now carrying on its stabilization plan on a purely voluntary basis.

3. **Dried Fruits.**—(i) *The Dried Fruits Export Control Act 1924-1938.* This Act was passed by the Commonwealth Parliament at the request of the dried fruits industry to organize the overseas marketing of Australian dried vine fruits. The Dried Fruits Control Board, consisting of eight members—including five growers' representatives, two members with commercial experience, and one Government nominee—was appointed

to control the export, and the sale and distribution after export, of Australian sultanas, currants and lexias. In conjunction with its London agency, the Board has improved the marketing of Australian dried fruits overseas, and has increased the demand for the product. Its system of appraisalment has resulted in more satisfactory realizations. Its methods of ensuring continuity of supply and regulating shipments and its participation in the advertising campaign of the Australian Overseas Trade Publicity Committee have benefited the industry considerably. No dried fruits may be exported excepting by means of a licence, which is issued subject to conditions recommended by the Board.

(ii) *Dried Fruits Export Charges Act 1924-1929*. This Act provides for the imposition of a levy on all sultanas, currants and lexias exported from the Commonwealth for the purpose of defraying the administrative expenses of the Board and the cost of advertising, etc. The rate of the levy is fixed by regulation. Under an amendment made in 1927 provision was made for the exemption of sultanas, currants and lexias from the levy upon recommendation by the Board.

(iii) *The Dried Fruits Act 1928-1935*. In previous issues of the Year Book reference has been made to the Dried Fruits Act and its provisions outlined (see page 894 of Official Year Book, No. 28). The legislation is on similar lines to that for dairy produce referred to in par. 2 (iii) above.

4. **Canned Fruits.**—(i) *The Canned Fruits Export Control Act 1926-1935*. This legislation was introduced at the request of canners and representative organizations of fruit growers with the object of organizing the overseas marketing of canned fruit. The original Act referred to canned apricots, peaches and pears only, but canned pineapples and canned fruit salads consisting of not less than 75 per cent. of specified fruits were subsequently brought within the scope of the Board's operations. The personnel of the Board consists of one representative each from proprietary and privately owned canneries, co-operative canneries, State controlled canneries, pineapple interests, and the Commonwealth Government. No canned fruits to which the Act applies are permitted to be exported except under a licence issued in accordance with conditions recommended by the Board. The system of marketing adopted by the Board, including the fixation of minimum selling prices overseas, the appointment of a London agency and the engaging in overseas trade publicity, has resulted in the satisfactory disposal of the annual exportable surplus of canned fruits. The distribution of canned fruits has been widened and the exporting side of the industry placed on a sounder basis through the Board's operations.

(ii) *The Canned Fruits Export Charges Act 1926-1935*. This Act provides for the imposition of a levy on the export of canned fruits to meet the administrative and other commitments of the Board. The rate of the levy is fixed by regulation from time to time. An amendment in 1929 provided for certain exemptions from payment of the levy when recommended accordingly by the Board.

5. **Wine.**—(i) *The Wine Overseas Marketing Act 1929-1936*. This Act was introduced at the request of the viticultural interests in Australia with the object of placing the overseas marketing of Australia's surplus wine on an orderly basis. The Wine Overseas Marketing Board was appointed to supervise the exports, and the sale and distribution after export of Australian wine.

The name of the Board was changed to the Australian Wine Board in 1936. No wine may be exported except by means of a licence, which is issued under conditions recommended to the Minister by the Board: these include the withholding of shipments as directed by the Board. The Board has a London agency which advises on marketing conditions. The methods of marketing adopted by the Board, including its participation in the advertising campaign of the Australian Overseas Trade Publicity Committee, have resulted in the widening of the distribution of Australian wines overseas.

(ii) *The Wine Grapes Charges Act 1929*. This Act provides for the imposition of a levy on all grapes used in the Commonwealth for the manufacture of wines or spirit. The proceeds of the levy are used to defray the administrative and other expenses of the Board, and provision is made for such exemptions from the levy as the Board may recommend.

6. *Meat.*—(i) *The Meat Export Control Act 1935–1936.* This Act was introduced following a decision of a conference of Commonwealth and State Ministers with members of the Commonwealth Meat Advisory Committee, held in October, 1935, to set up a Meat Board with defined statutory powers. The Australian Meat Board, which was appointed under the Act in January, 1936, consists of eighteen members, representative of producers, processors, exporters and the Commonwealth Government. Provision is made for the appointment from within the Board of an Executive Committee and a Beef Committee. Export of meat is controlled by licence. The Board has power to regulate shipments of meat and to arrange contracts in respect of freights and insurances; to promote overseas sales by advertising and to foster research into meat problems; and to supervise the issue of export licences. The Board also has power to appoint a London representative.

(ii) *The Meat Export Charges Act 1935.* By means of a levy collected on all meats exported from the Commonwealth, funds are provided for the purpose of defraying the expenses and charges incurred by the Australian Meat Board in the course of its business. The customary provision is made for exemption from the levy when recommended by the Board.

7. *Apples and Pears.*—(i) *The Apple and Pear Organization Act 1938.* This Act which was passed by the Commonwealth Parliament at the request of the Apple and Pear industry, provides for the establishment of an Australian Apple and Pear Board for the purpose of organizing and controlling the export trade in fresh apples and pears.

The Act provides that the Board shall consist of one member to represent the Commonwealth Government; eleven members to represent the growers of apples and pears on the basis of four from the State of Tasmania, two each from Victoria and Western Australia, and one each from New South Wales, Queensland and South Australia; and four members to represent exporters of apples and pears on the basis of one from each of the States of Victoria, South Australia, Western Australia and Tasmania.

This Statutory Board will replace the voluntary body known as the Australian Apple and Pear Council which, through the organization of affiliated producing and exporting interests, has dealt with the general affairs of the industry.

(ii) *The Apple and Pear Export Charges Act 1938.* This Act provides for the imposition of a levy on all apples and pears exported from the Commonwealth for the purpose of providing the funds necessary to meet the administrative and other expenses of the Board.

(iii) *The Apple and Pear Publicity and Research Act 1938.* Under this Act, the Australian Apple and Pear Board is empowered to expend moneys, specifically collected and appropriated, for the purpose of increasing and extending the consumption of apples and pears throughout Australia by publicity, research, or any other means.

The fund for this purpose is to be created from the proceeds of a tax levied on all apples and pears sold for consumption in Australia as fresh fruit. Apples and pears exported or to be exported, or processed or to be processed, are exempt from the tax.

The related taxing measures are:—*The Apple and Pear Tax Act 1938* and the *Apple and Pear Tax Assessment Act 1938*.

8. *Wheat Industry Assistance Act 1938.*—This legislation supplements legislation of a uniform type passed by all the State Parliaments and is designed to enable the operation of a home consumption price scheme for the wheat industry on a Commonwealth basis.

The legislation is based on a home consumption price of 5s. 2d. a bushel, free on rail, Williamstown, equivalent to 4s. 8d. at country sidings. When the price of wheat falls below that level the returns of growers will be supplemented by payments from a fund established from the proceeds of a flour tax which varies inversely with the price of wheat. When the export price rises above that level provision is made for a tax on wheat sold, the proceeds of which are to be applied to ensure that the cost of wheat gristed for home consumption shall not exceed 5s. 2d. per bushel.

Out of the general fund a sum not exceeding £500,000 per year will be reserved for special purposes including the transfer of producers growing wheat on marginal lands to other areas where they will be able to engage in mixed farming or to enable them to increase the size of their holdings to make wheat growing worth while.

A Wheat Stabilization Advisory Committee has been established to determine the appropriate times for a variation in the rate of tax which will be fixed on the basis of a rigid formula.

The State legislation undertakes to ensure that prices charged to consumers are reasonable and the Commonwealth legislation contains provision that no State shall be entitled to receive payments where that undertaking is not carried out.

9. **Export Guarantee Act.**—For a considerable time this Act has not been invoked to directly provide for assistance in the marketing of primary products. The Dried Fruits Advances Act, disbursements under which were made for the appropriation pursuant to the Export Guarantee Act, has ceased to operate. The Board of Trade, which was formed to advise and recommend on expenditure proposed under the Act, has not functioned for some years. The only recent expenditure under the Act has been in respect of special overseas trade publicity, but since 1st July, 1934, expenditure under that heading has been made the subject of a separate appropriation. The total assistance granted under the Act during its period of operation amounted to £670,574 which included substantial payments on account of both the Dried Fruits Advances Act and overseas trade publicity. Although the Export Guarantee Act has not been repealed, it is not proposed that any further payments shall be made under it.

10. **Australian Agricultural Council.**—Particulars of the formation, personnel and functions of the Australian Agricultural Council are given in Chapter XX.—Agricultural Production.

§ 12. The National Safety Council of Australia.

The National Safety Council of Australia was founded in Melbourne in 1927 for the purpose of developing mainly by means of education safety on the road, at work and in the home, and its activities have developed in other directions wherever the need for reducing the toll of accidents has been shown. In various States it issues by courtesy of the Traffic Authorities a booklet with every motor driver's licence, and conducts continuous propaganda through the press and other sources. It also forms Junior Safety Councils in the schools for developing a safety conscience among children. The children themselves are officers of these Councils and patrol the roads in the neighbourhood of the schools and conduct the scholars across in safety. Posters are available to schools at cost in connexion with Health and Safety lessons in the schools. Small films specially taken are available for children's and home safety instruction.

A "Safe Driving" campaign for individual motor drivers is conducted as well as a "Freedom from Accidents" competition among employee drivers, those completing a year free from any accident for which they are responsible being given a certificate to that effect. "A Factories' Service of four posters per month, together with slips for pay envelopes, constitutes a regular service for the dissemination of safety advice, and was supplied to over 45,000 workers in factories last year. Committees deal with specific problems regarding traffic, films, safety in industry, air safety and home dangers. The Air Safety Committee has issued a 32-page booklet "Air Sense" for distribution with "A" pilots' licences through the Civil Aviation Branch of the Defence Department.

The Council is supported by public subscription and sales of service, and is a non-profit organization. Numerous lectures are given throughout the year on the work of the Council, and on various aspects of safety, and lectures are always available for any organization which makes application to the Secretary.

§ 13. League of Nations.

Australia was one of the original signatories of the Treaty of Versailles of 28th June, 1919, under which the League of Nations was established, and thus became a Member of the League and its kindred organizations—the International Labour Organization and later the Permanent Court of International Justice. On 2nd October, 1933, Australia was elected a non-permanent member of the Council of the League of Nations for a period of three years, and was succeeded by New Zealand in September, 1936. There are now four permanent members of the Council (Great Britain, France, Italy and the Union of Soviet Socialist Republics) but of these Italy gave notice of her withdrawal from the League on 11th December, 1937, and, although such notice does not become effective for two years, Italy has not taken any part in League affairs since it was given, and eleven non-permanent members, viz., Belgium, Bolivia, China, the Dominican Republic, Greece, Iran, Latvia, New Zealand, Peru, Sweden and Yugoslavia. The term of the non-permanent members is three years.

Australia has been represented at each Assembly of the League from its inauguration in 1920, and at nearly all of the conferences of the International Labour Organization. The contribution of Australia towards defraying the expenditure of the League of Nations and its kindred organizations is on the basis of 23 of 932 units, and for the year 1938 amounts to 724,787 Swiss francs, or, in Australian currency at the present rate of exchange, approximately £33,555, out of a total budget of 29,416,884 Swiss francs. Australia holds a mandate, issued through the League of Nations, for the former German territory of New Guinea, and, by agreement with Great Britain and New Zealand, administers the Mandated Territory of Nauru, for which a mandate was issued to the British Empire.

§ 14. War Service Homes.

The operations of the War Service Homes Commission at 30th June, 1938, may be briefly set out as follows:—Total applications approved, 43,532; expenditure on provision of homes, purchase of land for future use, etc., £29,570,003; 21,291 houses had been completed; and 34 homes had been enlarged.

In addition, the Commission had taken on behalf of eligible applicants, 12,967 already existing properties, and had taken over mortgages existing on 2,020 dwelling houses. Dual assistance had been approved in respect of 59 applications, making the total number of homes provided under the War Service Homes Act, 37,280. Homes are insured under a comprehensive policy, the total insurances in force including cover notes amounting to £20,957,945. The total receipts of the Commission to 30th June, 1938, were £25,092,653, of which £9,290,648 was paid to the National Debt Sinking Fund. Arrears of instalments outstanding at the close of the year equalled £808,345 or 3.73 per cent. of the total instalments due.

§ 15. National Health and Pensions Insurance.

1. *Historical.*—Social Insurance was first brought before the Australian people in 1910, when Sir George Knibbs, the Commonwealth Statistician, upon his return from an official visit to several European countries, published a bulletin setting forth the schemes in operation in Europe.

The war years which intervened deferred the consideration of any such scheme for Australia. The early post-war period saw a re-awakening of interest and the International Labour Office played a prominent part in advocating the introduction of insurance measures protecting workers against sickness and old age. Great Britain had adopted Health Insurance in 1911, and in a short time it was accepted by all classes of the community as an essential and necessary piece of social legislation.

In Australia proposals were put forward from various quarters and in 1923 a Royal Commission was appointed to inquire and report. In its first progress report the Commission stated:—

“Your Commissioners are, therefore, of the opinion that it is both desirable and necessary that the Commonwealth Government institute a compulsory system of National Insurance in Australia which will provide for the payment of sickness, invalidity, maternity, and superannuation benefits to insured members. It is

considered that only by governmental control and supervision can equitable arrangements be made whereby definite and adequate benefits will be granted to all insured members, with that necessary economy in cost of administration, uniformity of method, effective co-ordination and unbiased control of the various sections of one comprehensive scheme. A compulsory basis is recommended, provided the system is supervised by the Government, as compulsory provisions can be effectively controlled by a national organization only, and there are no valid reasons why the Government should transfer its functions and responsibilities to private institutions."

The fourth and final report of the Commission was presented on 5th October, 1927, and in that year a National Insurance Advisory Committee was appointed. This Committee was supplemented in 1928 by an Actuarial Committee, which submitted recommendations and a draft Bill. The Honorable the Treasurer (Dr. Earle Page) introduced a Bill in September, 1928, but the intervening elections, followed by the depression years, resulted in the temporary abandonment of the measure.

In 1934 proposals were again examined by the Government which, in 1936, requested from the British Government the services of Sir Walter S. Kinnear, K.B.E., F.C.I.I., Controller of Insurance Department, Ministry of Health, and Deputy Chairman of National Insurance Joint Committee, Great Britain. This action followed upon a report by Sir Frederick Stewart, who had returned from the Geneva Conference where he had examined National Insurance schemes in operation overseas. Sir Walter Kinnear presented his report in June, 1937, and shortly afterwards the Government was returned at a general election with a mandate to provide National Insurance in Australia.

2. **Legislation.**—The Government forthwith introduced legislation, based on the report of Sir Walter Kinnear, which was passed by Parliament in June, 1938, and assented to on the 5th July, 1938. The legislation is contained in three Acts—

- (a) National Health and Pensions Insurance Act 1938 (No. 25 of 1938), the main Act, "to provide for Insurance against certain contingencies affecting Employees, and the Wives, Children and Orphans of Employees, and for other purposes," and—
- (b) The two contribution Acts (Nos. 26 and 27 of 1938) imposing on Employers and Employees the liability for contributions.

The division was adopted for Constitutional reasons. The Acts are to be read as one and are referred to as "the Act".

Three proclamations have been issued, enabling the entire scheme to be brought into operation on 4th September, 1939.

3. **Basic Principles of Scheme.**—The Scheme has four basic characteristics—

- (a) It is compulsory and applicable to every person within its range;
- (b) It is contributory so that it is, in fact, insurance and not public benevolence, and there are specific contributions from employers and employees and the Commonwealth Treasury;
- (c) The benefits flow from contributions as such, without "means tests" of income or property; and
- (d) It is financially sound and its costs, benefits and funds are related to one another.

4. **Administration.**—(i) *The Commission.* Subject to the control of the Minister, administration is vested in the National Insurance Commission, consisting of three Commissioners appointed by the Governor-General. The first Commissioners appointed are—

J. B. Brigden, M.A., Chairman;
D. McVey, A.M.I.E. (Aust.);
H. C. Green, F.S.S.

In each of the States Deputy Commissioners have been appointed and the work in districts is carried out by an inspection staff.

(ii) *Approved Societies.* The Act provides for the establishment of Approved Societies subject to the Commission which will administer sickness benefit, disablement benefit and the dependent child allowances. It will be their responsibility to see that the funds are used to the best advantage. Investments are restricted to those authorized by the Act. Actuarial valuations will be made at quinquennial periods.

5. *The Scope of the Act.*—Insurance is limited to employees, and details of insurable employment are set out in the first schedule to the main Act. In general, all persons who work for an employer under a contract of service will be insured between the ages of fourteen years and the ages when normally they will become entitled to receive the old-age pension. These ages are 60 for women and 65 for men. Other similar categories of employment, though not under contract of service, are also insurable and the Commission has power to include others within the limits set out in the Schedule. Certain exceptions are provided and include, *inter alia*—

- (a) Government and semi-government employment in which benefits equal to those of National Insurance are provided and suitably safeguarded.
- (b) Employment otherwise than by manual labour at a rate of remuneration exceeding £365 a year.
- (c) Employment which is specified as subsidiary.

It is estimated that 1,350,000 men and 465,000 women will come within the scope of the Act at the commencement.

6. *Benefits.*—(i) *Medical.* Medical benefit means medical treatment by a qualified medical practitioner and provision of proper and sufficient drugs and medicines and prescribed medical and surgical appliances. The insured person is entitled to medical benefit while he remains in insurance, and if he is entitled to a pension on reaching pension age he receives medical benefit for life.

(ii) *Sickness.* Sickness benefit consists of periodical payments to the insured person during incapacity from work (commencing on the fifth day of incapacity) for a maximum period of 26 weeks. Sickness benefit is subject to a qualifying period of 26 weeks' insurance and payment of a minimum of 26 contributions. The rates of benefit are as follows:—

Adults and Married Minors—

Males	20s. per week.
Females	15s. per week.

Unmarried minors who have been in insurance for a period of 104 weeks and paid 104 contributions—

Males	15s. per week.
Females	12s. 6d. per week.

Unmarried minors (not being juvenile contributors) who have been in insurance for a period of less than 104 weeks—

Males	12s. per week.
Females	10s. per week.

Juvenile contributors, males and females .. 5s. per week.

Special conditions as to the period of benefit apply to juvenile contributors.

(iii) *Disablement.* Disablement benefit consists of periodical payments to the insured person in respect of any period after the termination of sickness benefit, during which incapacity for work due to sickness continues. Disablement benefit is payable after 104 weeks of insurance and contributions. The rates are as follows:—

Adults and married minors—

Males	15s. per week.
Females	12s. 6d. per week.

Unmarried minors—

Males	12s. per week.
Females	10s. per week.

(iv) *Old-age Pension.* An old-age pension of £1 a week, in the case of males, and 15s. a week, in the case of females, is payable to persons who are in insurance when they reach the maximum age and who have built up the necessary qualifications. These qualifications relate solely to contributions paid and length of time in insurance and have no relation to property or income.

(v) *Widow's Pension.* A pension is payable to the widow of an insured man if he, during his lifetime, has built up the necessary qualifications, and consists of a payment of 12s. 6d. a week (which will be increased to 15s. in 1944) for life or until she re-marries.

(vi) *Orphan's Pension.* This consists of a payment of 7s. 6d. per week to any child, both of whose parents are dead, and whose last surviving parent was insured at death and satisfied certain conditions as to contributions; it ceases when the child attains the age of fifteen years, or sixteen if incapacitated.

(vii) *Dependent Child's Allowance.* Attached to cash benefits is the right to receive a weekly allowance of 3s. 6d. for each child under the age of fifteen years, or sixteen if incapacitated.

(viii) *Additional Benefits.* Provision is made in the Act for a valuation of the funds of Approved Societies every five years and if the valuation is favourable the Approved Society may be able to give to its members additional benefits.

7. *Finance.*—The funds of the Commission will come from three sources: (a) Contributions of employers, (b) Contributions of employees, and (c) Funds transferred from the Commonwealth Treasury.

Contributions will be collected by means of stamps. The employee will be required to present to his employer the card upon which the employer shall affix the stamp to the value of the total contribution payable in respect of the employee, and the employer will, in the case of persons below the maximum age, be entitled to recover from the employee, by a deduction from wages, half the value of the contribution payable. The contributions are payable under the special Acts supplementary to the main Act, and are as follows:—

TABLE OF CONTRIBUTIONS.

Payable by and in respect of.	Amount per week.	Distribution.
	<i>s. d.</i>	<i>s. d.</i>
Males	3 0	Health .. 1 3 Pensions .. 1 9
Females	2 0	Health .. 1 2 Pensions .. 0 10
Juvenile Contributors—		
Males and Females	0 8	Health .. 0 8
For male persons who have attained the age of 65 years—Employer	1 6	Pensions .. 1 6
For female persons who have attained the age of 60 years—Employer	1 0	Pensions .. 1 0
Voluntary Contributors—		
Entitled to Medical Benefit—		
Males	3 0	Health .. 1 3 Pensions .. 1 9
Females	2 0	Health .. 1 2 Pensions .. 0 10
Not entitled to Medical Benefit—		
Males	2 8	Health .. 0 11 Pensions .. 1 9
Females	1 8	Health .. 0 10 Pensions .. 0 10
Special Voluntary Contributor (Female)	1 0	Pensions .. 1 0
Voluntary Contributor (Female) for additional Old-age Pension	0 6	Pensions .. 0 6

In the case of persons over the pension age no contributions are payable by the employee, but to prevent discrimination the employer's contribution is payable.

Treasury transfers to the funds of the Commission will be made as follows :—

- (a) An annual amount of £100,000 towards the administration of Health Benefits ;
- (b) An annual amount of 10s. for each insured person (limited as set out in the Act) towards the redemption of reserve values in respect of Health Insurance benefits ; and
- (c) An annual amount towards pensions of £1,000,000 for the first five years, increasing thereafter by £500,000 a year until the transfer is £10,000,000, at which figure it will be stabilized.

8. Voluntary Contributors.—Under conditions set out in the Act, persons who have been in employment for as much as two years may continue as voluntary contributors. Female contributors may by the payment of an extra 6d. a week qualify for an old-age pension of £1 a week.

9. Existing Pensions Legislation.—The National Health and Pensions Insurance Legislation does not affect the provisions of the "Old-age Pensions" scheme which remains intact and is available to persons who can satisfy the "means" test associated therewith. Provision is, however, made against duplication of pensions.

10. Miscellaneous.—This synopsis deals only with the main features of the Act as it affects the great bulk of employers and employees. No mention has been made of the "free insurance period" by which the rights of insured persons are preserved after cessation of contributions for periods up to two years, nor of the relationship between the Act and State Workmen's Compensation Acts, and the various Repatriation Acts. Reciprocal arrangements may be made with any part of the British Empire where legislation substantially corresponding to the Act is in operation. The Act also provides for variations of the conditions under which the Act shall apply to employments of a seasonal nature, or subject to periodical fluctuation, and to casual or intermittent employment.

11. Conclusion.—The National Health and Pensions Insurance Act covers a greater geographical area than any scheme of a like nature heretofore introduced in any country of the world. It will in one measure provide insurance against contingencies which have, in other countries, been dealt with by successive stages, and will establish a basis upon which insurance on a National scale may be extended to wives and children of employed persons, to self-employed persons and to other sections of the community. It is based on the pooling of risk, and aims to prevent the burden of misfortune falling at a time when the individual is least able to assume that burden, and to provide, by the joint effort of employees, employers and the Government, a measure of security against old age and adversity.

The Tides of Australia.*

1. Introduction.—It was one of the many triumphs of Newton to demonstrate that the daily ebb and flow of the waters of the ocean, which we call the tides, are due to the gravitational attraction of the sun and the moon. From his theory the tide-producing force on the waters of the earth at any point can be computed with precision for any given disposition of the sun and moon. At any place it can be resolved into a vertical and a horizontal component. The vertical force, however, tending as it does to lift

* By Professor Sir Robert Chapman, C.M.G.

the water, amounts only to something of the order of a couple of grains weight per ton of water, which can produce no evident effect. It merely reduces the weight of the water to a very small degree and causes no horizontal motion. But the horizontal component of the tide-producing forces, although correspondingly small, can be effective in causing movement of the water in spite of its apparent insignificance. In the lower reaches of the Murray River the fall is only three-quarters of an inch to the mile, which means that the force producing the motion of the water is the resolved part of gravity down this almost level slope. This amounts to a force of about 185 grains weight per ton of water, and yet, little as it is, it is enough to cause the flow in the river. Small as this force is, however, it is about 80 times as much as the greatest horizontal forces producing the tidal movements throughout the oceans of the world. The tidal forces are very small, but they act all the time upon every ton of water in the seas and we observe the concentrated effects around the coastal boundaries, where the rise and fall of the water is usually much greater than it is at a distance from the land. For example, Captain T. J. J. See of the United States Navy gives the mean value of the tidal range for 78 island stations in the Pacific as 3.23 feet, whereas where the ocean laps the eastern shores of Australia the range of tide is about doubled. The enhanced range along the coastline is explained by the fact that as the tidal wave approaches the shores of a continent its energy is usually concentrated into shallower seas and narrowing inlets, although occasionally as in the case of Port Phillip we get a reverse effect. There the spring range at the heads is over 5 feet but, owing to the narrow entrance and the large area of the bay, the spring range at Williamstown is only 3 feet.

2. **The Progressive Wave Theory.**—The tide-producing forces at any place on the earth's surface undergo, of course, continuous variation owing to the revolution of the earth on its axis and to the movements of the sun and moon relative to the earth. These movements, however, though complex, are perfectly well known and it is still a practicable problem to compute exactly the magnitude of the tidal forces at any place at any particular time. It is one thing however to be able to compute the tide-producing forces and quite another thing to determine the effects which these forces produce upon the waters of the ocean. It would be possible to do this if the earth were covered by water of uniform depth or if the oceans of the earth were circular or rectangular or of some simple mathematical form and if the depth varied according to some simple law, but the actual shapes of the oceans are so exceedingly complex and the depths vary so erratically that in the present state of knowledge the calculation of the effects of the tidal forces is beyond our powers. Even now the fundamental problem as to the mode of origin of the tidal wave can hardly be regarded as definitely settled. The tidal wave is not a "free" wave, such as might be caused by a temporary disturbance, when the wave, once started, travels with a speed depending simply on the depth of water. In the case of the tides the generating forces are acting all the time and the theory of the first investigators, beginning with Laplace, was that the tidal forces set up what was known as a "forced" wave which necessarily travelled round the earth in a period harmonizing with that of the forces. It would be easy to picture this happening in an ocean which covered the whole earth, but in our real world there is only one ocean in which a wave could possibly travel right round the earth and that is the Great Southern Ocean, though even in this ocean the passage for such a wave is seriously restricted between Cape Horn and Graham Land on Antarctica. The theory therefore that has been generally held by tidal investigators, from Laplace, Lubbock, Whewell and Airy onwards, is that the tidal wave, travelling round the world continuously in the Southern Ocean, propagates its disturbance northwards into the Indian, Atlantic and Pacific Oceans in turn. This is commonly known as the Dynamic or Progressive Wave Theory. The 1936 edition of the *Oxford Advanced Atlas*, for example, in its map of co-tidal lines, shows an area of the Pacific Ocean west of South America marked "Origin of the Tidal Wave" and from this origin the wave is pictured as being propagated in a north-westerly direction into the northern half of the Pacific, and along the Southern Ocean, which is the source from which tidal waves travel, northward into the Indian and Atlantic Oceans. This is substantially the same assumption as is made by Whewell who drew the first map of the co-tidal lines of the world in 1836, and by Airy who followed him. Figure 1 is a

reproduction of a part of a map of the world, showing co-tidal lines in the oceans surrounding Australia, published in 1926 in a treatise entitled "New Dynamical Wave Theory of the Tides" issued by the Hydrographic Office of the United States Navy and compiled by Captain T. J. J. See, a vigorous champion of the progressive wave theory.

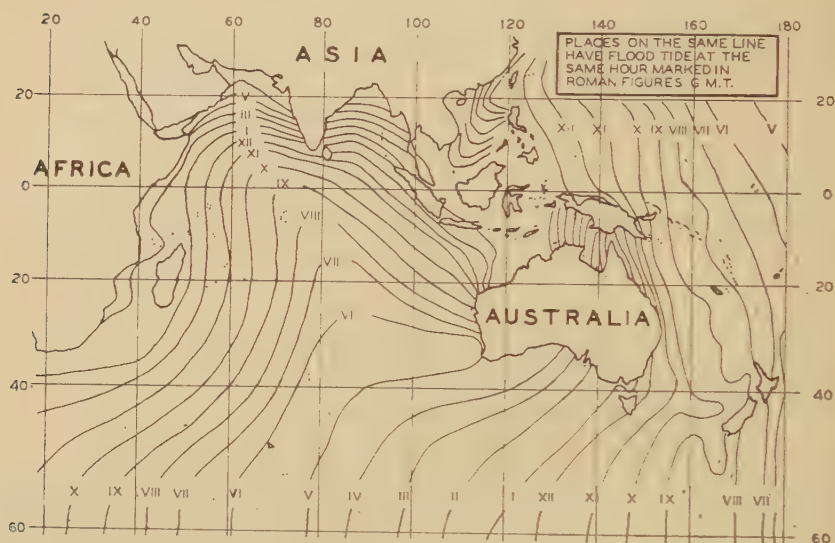


FIG. 1.—CO-TIDAL LINES.

From map by T. J. J. See, 1926.

The co-tidal lines show the onward march of the front of the tidal wave, it being high water at all points on the same co-tidal line at the one time. The co-tidal lines, drawn at hourly intervals, show the tidal wave approaching the eastern shores of Australia from the Pacific, then travelling from east to west along the Southern Ocean, and from there flowing in a north-westerly direction across the Indian Ocean. It is obvious that in the making of such a map of co-tidal lines the imagination of the author has to be brought into play quite considerably, because we have no observations of the rise and fall of the water at points far out from land, and our actual observations, upon which the map of co-tidal lines is based, are confined to places on the shores of the continents and to islands. Now there are no islands in the ocean to the south of Australia and it follows that the shape of the co-tidal lines in that region in this map must be determined by the progressive wave theory which the author has in his mind rather than by actual observation.

There are serious difficulties to the acceptance of this simple theory of the progressive wave. Dr. G. R. Goldsbrough, for example, in a paper contributed to the Royal Society of London in 1928, showed by mathematical calculation that, in an ocean extending from the South Pole to latitude 45 degrees or less, only quite small semi-diurnal tidal waves can be generated in such depths as are comparable with the Southern Ocean. If however the Atlantic tides are derived from the Southern Ocean, the large semi-diurnal tides of the Atlantic clearly require that there should be large tides of a similar kind in the Southern Ocean. Moreover, although the tidal wave appears to travel in the Atlantic from south to north it varies in height and speed in a way that is hard to understand if it is a simple progressive wave. If the phenomena of the tides along the south coast

of Australia, for instance, are due to a tidal wave moving from east to west, how is it that from Cape Howe to the Head of the Great Australian Bight, more than half way along, we have a mean spring range of tide running from 5 to 6 feet, whereas from there on to Cape Leeuwin the range is only about $2\frac{1}{2}$ feet? It cannot be explained either by a variation in depth of the ocean or by a change in its width. Again, going along the west coast of Australia from south to north, the tidal range at Springs from Cape Leeuwin up as far as Dirk Hartog Island is less than 3 feet but from there it increases rapidly until at Port Hedland it is 19 ft. 3 in. The progressive wave theory alone does not give us any reasonable explanation of facts like these.

3. The Resonance Theory of the Tides.—There is another school of opinion that, at the beginning of the present century, was first firmly established by the work of Mr. Rollin A. Harris, then Chief of the Tidal Department of the United States Coast and Geodetic Survey. According to Harris, instead of looking for a progressive wave travelling right round the globe, we should rather consider the oceans as great basins of water which are continuously subjected to the disturbing effects of periodic tide-producing forces. These may be divided out into forces of several different periods and the basin of water is capable of oscillating, or setting up what is known as a stationary wave in many different ways. Out of all these many possible methods of oscillation there will probably be one or more that will keep time or nearly so with one or more of the tide-producing forces, which are continuously acting. If so the water will naturally swing or oscillate in those ways which will keep time with the forces and those particular methods of oscillation will be emphasized and perhaps given a relative importance out of proportion to the forces which produce them. It is the same principle as that of resonance. So, if the ocean is capable of oscillating in some way periodic, say, with the lunar forces, it will do so and the corresponding tidal forces will produce an effect greater in comparison with the effects produced by other tidal forces than we should expect from our knowledge of their magnitudes. Thus the tide-producing forces due to the moon are about 2.3 times as great as those due to the sun, but we do not find that the lunar semi-diurnal tide is everywhere 2.3 times as great as the solar semi-diurnal tide. There are places around the coast of Australia where the solar tide is just as big as the lunar tide and other places where the lunar tide is five or six or even, as on the New Zealand coast, ten times as big as the solar. The most reasonable explanation of such effects that has been advanced is that they are due to the selective resonance of some adjoining body of water. If, for example, the solar semi-diurnal tide is very much greater than we should expect, in comparison with the semi-diurnal tide due to the moon, the probable reason is that there is an adjacent basin of water that has a natural period of oscillation of just about twelve solar hours, which harmonizes with the period of the sun's tide-producing forces. The repeated application of the tide-producing forces tends therefore to increase and emphasize the wave due to those forces that have this particular period. Harris accordingly made the attempt to divide the oceans of the earth into areas which he calculated, from his knowledge of their shapes and the recorded depths, would oscillate in synchronism with one of the components of the tide-producing forces, and then he made a map of the co-tidal lines of the world, based of course as previous ones on actual observations of the tides round the shores, but with an entirely different view point in the mind of the author, Harris' map, so far as it affects the oceans around Australia, is reproduced in Figure 2, and it will be seen that the co-tidal lines, especially those to the south of Australia, are altogether different in form to those in the map of Dr. See, who had at the back of his mind the idea of the progressive wave. In Figure 1 the co-tidal lines to the south of Australia run prettily well north-east and south-west; in Figure 2 they run roughly east and west. According to Figure 1 the time of high water along the southern coast of Australia increases progressively as we go from east to west and it takes just over four hours for the tidal wave to move along the entire southern coast from Cape Howe to Cape Leeuwin, over about 35 degrees of longitude. On the other hand according to Figure 2 the tidal wave approaches the south coast of Australia from the south and it is high water at the west end of it at the same time as at the east end of it. It surely ought to be possible, one would think, to say definitely which of these two views is correct. The south coast of Australia appears, according to this, to be in the position,

of being able to give decisive evidence for one side or the other. It is not however quite so simple as it may seem to form a definite opinion because, at most of our ports where observations are systematically recorded, the tidal wave has taken a considerable time to

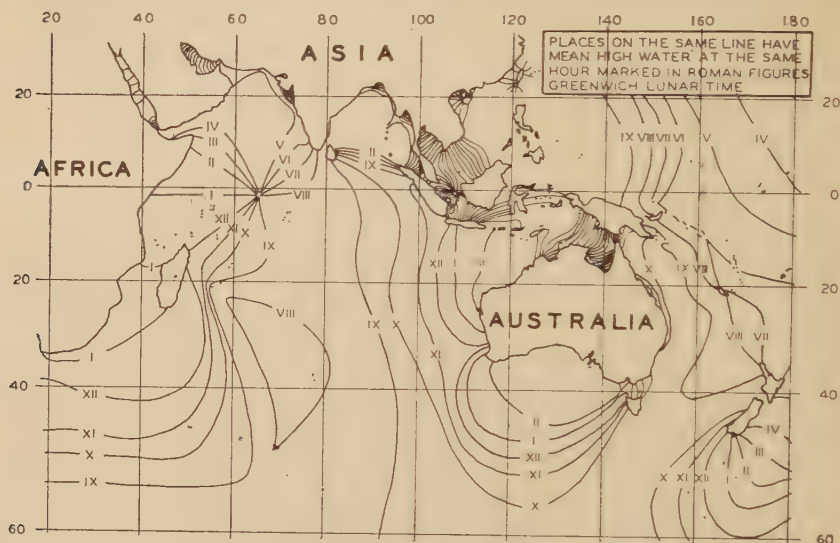


FIG. 2.—CO-TIDAL LINES.

From maps by R. A. Harris, 1904.

reach there from the open ocean. The tide, for example, takes over six hours to travel up the comparatively shallow water of Spencer Gulf, in South Australia, from the entrance up to Port Augusta at the top. It takes over three hours to traverse the shoals and channels of Port Phillip Bay from the Heads to Williamstown. Obviously we must consider only ports close to the open ocean to reach which the tidal wave has not been forced to move over long stretches of shallow water. The pamphlet on "South Australian Tide Tables for 1938" issued by the South Australian Harbours Board gives the times of high water on full and change days at a number of ports along the coast. Taking the most easterly and the most westerly of these, Port Macdonnell, close to Cape Northumberland, and Port Eyre, near the head of the Bight, the time of high water is given as practically the same at both places, Port Macdonnell being two minutes later than Port Eyre. These ports are separated by about 8 degrees of longitude, so that according to the co-tidal lines of Figure 1 we should expect Port Eyre to be about one hour later than Port Macdonnell. Again the Tide Tables issued by the Victorian Ports and Harbours Authorities give a list of tidal differences with reference to Williamstown as a standard port for various ports both in Victoria and other States, and they give the time of high water at Springs at Port Macdonnell as about 27 minutes earlier than at Warrnambool which has over 2 degrees of longitude to the east of it. The time given at Port Campbell, which lies still further to the east, is within two minutes of that at Port Macdonnell. The Admiralty Tide Tables give a list of tidal differences for many ports along the Australian coast and they show the tide at Eucla Roads to be two and a half hours earlier than that at Port Eyre which has $3\frac{1}{2}$ degrees of longitude to the east, and, on the far-western side of the southern coast, the tide at West Cape Howe is from two to three hours earlier than at any one of six ports between that and Eucla from which records have been obtained. In the *Manual of Tides* by Rollin A. Harris, published by the United States Coast and Geodetic Survey, a table is compiled giving the co-tidal hour for high water at spring tides, that is the number of lunar hours between the time of

high water at the place and the last transit of the moon at Greenwich, for a large number of ports on all continents. The following list is taken from the table, for places on the southern coast of Australia, in order running from east to west :—

Station.	Co-tidal hour.	Station.	Co-tidal hour.
Port Fairy	3.02	Denial Bay	3.90
Portland Bay	3.05	Port Eyre	3.17
Port Macdonnell	2.65	Eucla Roads	2.11
Rivoli Bay	3.18	Esperance Bay	4.03
Kingston	2.78	King George Sound	2.81
Victor Harbour	3.86	West Cape Howe	0.85
Streaky Bay	3.13		

Instead of showing a progressive increase from east to west the table shows only such variations as might be expected from differing local conditions. According to the co-tidal map of Figure 1 there should be a gradual increase in the co-tidal hours in this list of about three hours from top to bottom, but nothing of the kind is shown. The evidence seems to be definitely against the theory of the tidal wave moving from east to west along the Southern Ocean to the south of Australia. On the other hand it shows that the front of the tidal wave approaching the southern coast must be in a general way approximately parallel to the shore.

The two co-tidal maps show that the northern coast of Australia is affected by tidal waves which approach it both from the Indian Ocean at the western end and from the Pacific on the east. These two tides mingle in the waters to the north of Arnhem Land. In Van Diemen Gulf a stream setting westward enters the Gulf from the north through Dundas Strait where it meets a stream setting eastward which enters through Clarence Strait. Yet along the north shore of Arnhem Land the flood stream is in the main towards the east.

4. **Tidal Ranges round Australia.**—The range of tide along the northern coast of Australia is much greater than along the southern coast. From Torres Strait round to the western end of the coast of Arnhem Land the spring range is about 10 feet, falling a little to 8½ feet at Port Essington, but increasing as we go westward until at St. Asaph Bay on Melville Island the range is 14 feet. At Port Darwin the mean spring range is increased to 24 feet but it is sometimes as much as 30 feet. Further along, at Wyndham, at the apex of the Cambridge Gulf, it is 23 feet, and further along still, at Collier Bay and Kings Sound, where we have by far the biggest tides in Australia, the spring range is as much as 36 feet in Collier Bay with a mean spring range of 34 feet at Derby. Going further west the spring range gradually diminishes until we get to North West Cape. It is 28 feet at Broome, 19 ft. 3 in. at Port Hedland where a self-registering tide gauge has been established, 18 feet at Cossack and 13 ft. 6 in. at Fortescue. To the south of the North-west Cape the spring range of tide becomes very much less. It is only 6 feet at Maud Landing, just to the south of it, 5 feet at Carnarvon, and at Geraldton it is only 2 ft. 6 in. From here on, to the south as far as the Leeuwin and along the western end of the south coast as far as Eucla, the range is only 2 ft. 6 in. or less and we have along this corner of the Australian coast the smallest tides in all Australia. Going further to the east along the south coast the range increases. It is 5 ft. 6 in. at Port Eyre, 6 feet at Streaky Bay, Coffin Bay, Port Lincoln and at Cape Willoughby, on the eastern end of Kangaroo Island. The range, of course, increases beyond this as the tidal wave moves up the gradually narrowing Spencer and St. Vincent Gulfs. Further along on the ocean coast it is 5 feet at Port Macdonnell, but diminishes to 3 feet at Portland and Warrnambool, and then increases again, being 5 feet at Apollo Bay and 5 ft. 3 in. at Port Phillip Heads. It is 8 feet at the entrance to Corner Inlet, but only 3 feet at Lakes Entrance and at the mouth of Snowy River. At Gabo Island the mean spring range is 6 feet and it stands at round about 6 feet all the way up the east coast as far as Wide Bay, at the southern end of Great Sandy Island off the Queensland coast. It is 5 feet at Jervis Bay, 6 feet at Sydney Heads, diminishing to 5.1 feet at Port Denison, within the Harbour, 5.5 feet at the entrances to the Clarence and Richmond Rivers, and 6.6 feet at the Brisbane bar. From

here on, going north, the range increases. It is 11 feet at the entrance to the Mary River, 12 ft. 6 in. at Sea Hill, Keppel Bay, and at Broad Sound, where the rise at springs at different points in the Sound may be from 24 to 30 feet, the range being the greatest on the eastern coast. The *Australia Pilot*, issued by the Admiralty, says "In Broad Sound, the flood streams from northward and southward meet, thus producing the great range of tide here found". Doubtless this is accentuated by the configuration of the bay and by the shallowing water. From there on, going further north, it diminishes again, being 16 ft. 7 in. at the Flat Top Island Anchorage, Mackay, 7 ft. 9 in. at Townsville, 6 ft. 5 in. at Cairns, 6 ft. 3 in. at Cooktown and 10 feet at Cape Grenville, just south of Cape York.

Along the shores of Tasmania the highest tide is along the northern coast where the spring range is about 10 feet at Stanley, Devonport and Port Dalrymple, and at Roden and Hummock Islands in the Furneaux group at the eastern end of the north coast. At Hobart the mean spring range is 4 ft. 6 in. and at Macquarie Harbour, on the west coast, it is about 3 feet.

5. **Variations due to local conditions.**—A certain amount of this variation in the recorded heights of tides may be brought about by the narrowing and shallowing of the channel along which the tidal flood stream progresses. If the tidal wave enters a gulf which gradually contracts in width and decreases in depth the energy of the wave is spread over a continually diminishing area and the height of the wave is increased. There is a very good example of this in the behaviour of the tidal wave as it proceeds up the Spencer and St. Vincent Gulfs in South Australia. As we have already seen the tidal wave reaches Port Macdonnell, near the Victorian border, and Port Eyre, near the head of the Bight, at about the same time. It takes three hours and twenty-six minutes to traverse Investigator Strait and Backstairs Passage, separating Kangaroo Island from the mainland, to reach Rapid Bay, on the eastern side of the entrance to St. Vincent Gulf and a point near Sturt Bay on the other side. At Rapid Bay the mean spring range is about 6 feet. The wave at this stage starts to travel much faster in the deep water in the middle of the Gulf than it does in the comparatively shallow water at the sides, with the result that the wave front becomes more and more curved as it proceeds, being much more advanced at the centre than it is at each side. The consequence is that by the time it reaches the head of the Gulf, having traversed a distance a little short of 100 miles from the entrance, it is practically parallel to the coast line all the way round and high water reaches the Semaphore, which is on the shore of the Gulf alongside Port Adelaide, Black Point on the western side of the Gulf, and Port Wakefield at the head of the Gulf, all at the same time, one hour and twenty minutes after Rapid Bay. Moreover as the wave proceeds up the narrowing Gulf it increases in height, the spring range being 6 feet at Rapid Head, 8 ft. 3 in. at Port Adelaide, and at the head of the Gulf, at Port Wakefield, the range is 11 feet. Similar phenomena take place in Spencer Gulf to an even more marked degree, for it is about double the length and contracts to a narrower width. The tidal wave takes six and a half hours to go from Thistle Island, at the mouth, to Port Augusta at the head, and the spring range increases from 5 feet at Thistle Island to 12 feet at Port Augusta.

At Port Lincoln, on the western side of the entrance to Spencer Gulf, the peculiarity of the tidal behaviour was noted by Flinders. He observed there that "the tides did not exceed $3\frac{1}{2}$ feet and that, as in Princess Royal Harbour, there was only one high water in 24 hours, which took place at night, about eleven hours after the moon's passage over the meridian. Yet at Thorny Passage, which is but a few leagues distant, there were two sets daily. This difference in so short a space appears extraordinary: but it may perhaps be accounted for by the direction of the entrance to the port, which is open to the northeast, from whence the ebb comes (Captain Flinders, *Terra. Aus.* Vol. 1, p. 150). The explanation here offered is by no means obvious as it stands, but taken in conjunction with another well-marked characteristic of our tides it gives us the solution. All round the Australian coast there is a well-marked "diurnal inequality", as it is termed; that is to say, the forenoon and afternoon tides are not of equal height, but one may be much higher than the other. At Port Lincoln the observable daily tide is simply the higher one of the two daily tides, for owing to the direction of the outlet of the harbour the water cannot escape freely, as the ebbing tide from the Gulf retards its outward flow. The

result is that the level of the water in the large area of the Port Lincoln Harbour falls very slowly, so slowly that the second and lower tide which follows in the course of the day does not appreciably raise the level of the water, and so is not apparent as a tide.

6. Diurnal Inequality.—This phenomenon of diurnal inequality, so evident at Port Lincoln, is a marked characteristic of Australian tides generally. Curiously enough, in the waters of the North Atlantic, where the tides were first studied, there are at most ports two approximately equal tides a day and they are at regular time intervals apart, so that when the exploration of distant seas showed in many cases that the two high waters or the two low waters or even both were unequal in height the occurrence was at first thought to be something abnormal. Yet the theory as to the cause of the tides shows that diurnal inequality is something that is to be expected whenever the sun or moon is not on the equator, especially at places on the earth in high latitudes, and that the remarkable thing is, not that it occurs around the coasts of Australia and other places, but that it does not occur in the North Atlantic. When, for example, the sun is north of the equator, it tends, at a point in the southern hemisphere, to cause the evening tide to be higher than the morning tide, but when the declination of the sun is south the effect is reversed. This happens at Port Adelaide, South Australia, a place where the sun has a pronounced influence on the tides. At this port there is a definite diurnal inequality which changes sign about the equinoxes. The maximum difference in height of the two daily tides is about 3 feet, with a mean spring range of 8 ft. 2 in., and the inequality changes sign a little before the first equinox and a little after the second. That is to say from about the middle of October until about the middle of February the morning tide is the higher, the sun being then south of the equator, but from then on to the middle of October again the afternoon tide is higher than the morning tide. In this instance the sun is the dominating influence and there are few places where this is the case. At most ports the moon exerts the chief controlling force and the moon's declination changes sign about every fortnight, so that usually the changes in sign of the diurnal inequality are much more frequent. Generally for one-half of every month the sun and moon will combine to give a diurnal inequality of the same kind but their influences in this respect will be in opposition for the other half of the month.

7. Harmonic Analysis.—It is evident that the combination of a number of simple waves may result in a wave motion that is anything but simple, and it has been demonstrated mathematically that any wave motion whatever, provided that it is periodic, may be resolved into a number of simple sine waves. This is done in what is known as the Harmonic Analysis of the tides. The tide-producing forces all act over recurring periods which are definitely known. The resultant action can therefore be resolved into a number of simple waves each such as might be produced by a fictitious satellite moving round the earth in a circle on the equator. Each one of these simple waves is referred to as a "component". At most places the two principal ones are the semi-diurnal waves caused by the sun and moon as the earth revolves on its axis. They are generally known in tidal literature as S_2 and M_2 , the suffix 2 indicating that they are semi-diurnal and the letters S and M indicating sun and moon. These are simple regular waves such as would be caused if the sun and moon were always at the same distance from the earth and always on the equator. The period of S_2 , or the time interval between one high water and the next is twelve hours and that for M_2 is twelve hours 25 minutes. These periods are such that at intervals of about a fortnight they are both acting to produce high water at the same time, when the spring tides are the result, and midway between these times they are acting in opposition, one causing high water at the same time as the other by itself would cause low water, so that the water rises by an amount equal to their difference only and neap tides are observed.

To take account of the moon's declination we must introduce a diurnal wave to give the observed diurnal inequality. The moon's declination, however, is not constant. It varies from a maximum declination north to a maximum declination south or *vice versa* in an average period of 13.66 days. The difference between the tide-producing forces at the two daily high waters, which is the cause of diurnal inequality, is greatest when the moon has its greatest declination and gradually reduces to nothing as the moon moves on to the equator. This effect may be regarded as equivalent to that of two diurnal waves of equal height, having an average period of 24 hours 50 minutes, double

that of M_2 , of such lengths that they act together at intervals of 13.66 days and are in opposition at intervals midway between, giving then the equivalent effect of the moon on the equator. Just as the combination of the lunar and solar semi-diurnal tides gives the impression of a single semi-diurnal tide that varies in height from springs to neaps, so the resultant action of these two diurnal waves would be that of a single diurnal tide varying in height from a maximum when the moon has its greatest declination to a minimum when the moon is on the equator. These two diurnal tides, which take account of the varying declination of the moon, are generally denoted by the letters K_1 and O_1 , the suffix 1 denoting that the tide is diurnal. The influence of the more slowly changing declination of the sun is similarly equivalent to the combined effect of two equal diurnal waves which are in opposition at the equinoxes and act together at midsummer and midwinter when the sun is furthest from the equator. One of these has the same speed as K_1 so that the two are combined together. Thus it may be considered that the changing declinations of the sun and moon set up three diurnal waves usually denoted by the letters O_1 , P_1 and K_1 . O_1 is known as the lunar diurnal, P_1 as the solar diurnal, and K_1 , common to both sun and moon, is known as the luni-solar diurnal. These three waves will be equivalent in effect to that of the varying declinations only to a first approximation. We should need a long series of such waves, gradually diminishing in amplitude, to make the equivalence exact. But these three will be by far the largest in the series.

Again the variation in the moon's tide-producing force by reason of its continually changing distance may be regarded as the equivalent of another component wave. The moon describes its elliptic path around the earth, with an eccentricity of about one-twentieth, in an average period of 27.55 days. When it is nearest to the earth, in perigee, its wave-producing power is greater than when it is furthest from the earth, in apogee. If now we introduce another semi-diurnal component such that at perigee its high water will synchronize with M_2 and at apogee it will produce low water at the same time as M_2 will cause low water, the effect of the new component on M_2 will be to increase its height at perigee and decrease it at apogee, corresponding to the effect of the varying distance. In other words we may regard the eccentricity of the moon's orbit as setting up this additional tidal wave. The principal component tidal waves are therefore :—

M_2	..	..	Principal lunar semi-diurnal.
S_2	..	..	Principal solar semi-diurnal.
N_2	..	..	Lunar elliptic.
K_2	..	..	Luni-solar semi-diurnal.
K_1	..	..	Luni-solar diurnal.
O_1	..	..	Lunar diurnal.
P_1	..	..	Solar diurnal.

To get complete mathematical equivalence we require a very long series of components, but these seven are the most important ones, and the character of the tides at any place is determined by their relative magnitudes and phases.

The period of each one of these component waves is known from the movements of the sun and moon. With this knowledge it becomes possible, by the method of "harmonic analysis", given the records of a self-registering tide gauge over a considerable period, to determine the magnitudes of all the component waves and their relative phases at the beginning of the period. The length of time over which the records must extend for successful analysis may be a month or even a fortnight but more accurate results are obtained if the observations are complete over a full year. Once the magnitudes of the components are found and their phases at any particular time, it is a simple matter to compute their combined effect at any time afterwards. This is the only system of tidal prediction that is of any value for the Australian tides. Before it was introduced by Lord Kelvin, then Sir William Thomson, in 1867, the tides at Australian ports were a hopeless puzzle. Now at the principal ports predictions are issued for a year ahead by using the constants determined by harmonic analysis. Lord Kelvin made the first application to Australian tides by analysing records of the Fremantle tides in 1878 (*Nature*, Oct., 1878). At Port Adelaide the tides are still being predicted with success from constants found from the analysis of two separate year's records made over 40 years ago.

Of recent years our knowledge of Australian tides, particularly along the northern coast, has been greatly extended by investigations made by the Hydrographic Department of the Australian Navy. The following table gives the amplitude in feet, that is half the wave height, of each of the seven principal components at a selected number of places round the coast where analyses have been made. The places are ranged in order, beginning near Cape York and going round Australia anti-clockwise. Authorities are given by references at the end of table.

Place.			Amplitudes of Component Waves in Feet.						
			M ₂	S ₂	N ₂	K ₂	K ₁	O ₁	P ₁
Frederick Point ⁽¹⁾	..	..	1.8	1.6	0.8	0.4	1.6	0.7	0.5
10° 43' S, 142° 35' E									
Tuesday Island ⁽¹⁾	..	..	1.6	1.6	0.7	0.4	2.0	0.7	0.7
10° 33' S, 142° 21' E									
Thursday Island ⁽¹⁾	..	..	1.2	1.1	0.5	0.3	1.9	1.0	0.5
10° 35' S, 142° 13' E									
Proudfoot Shoal ⁽¹⁾	..	..	2.2	0.5	0.4	0.1	1.7	1.0	0.6
10° 31' S, 141° 29' E									
Port Langdon, Groote Eylandt ⁽²⁾	..	..	0.85	0.41	0.28	0.11	0.50	0.56	0.16
13 52' S, 130° 50' E									
Cape Don, Coburg Peninsula ⁽²⁾	..	..	1.98	0.85	0.38	0.23	0.82	0.65	0.27
11° 18' S, 131° 46' E									
Camp Point, Melville Island ⁽²⁾	..	..	3.39	1.50	1.12	0.40	1.52	1.00	0.5
11° 36' S, 131° 25' E									
Cape Hotham ⁽²⁾	..	..	3.97	1.61	0.84	0.43	1.15	0.75	0.38
12 03' S, 131° 17' E									
Tower Beach, Bynoe Harbour ⁽²⁾	..	..	5.64	2.95	1.06	0.80	2.03	1.02	0.68
12° 35.2' S, 130° 34' E									
Port Darwin ⁽³⁾	..	..	6.56	3.44	1.04	1.02	1.91	1.14	0.44
12° 38' S, 130° 51' E									
Port Hedland ⁽⁴⁾	..	..	5.51	3.35	0.87	0.80	0.79	0.50	0.19
20° 22' S, 118° 36' E									
Beadon Point ⁽²⁾	..	..	1.88	0.98	0.30	0.27	0.62	0.40	0.21
21° 38' S, 114° 06.5' E									
Fremantle ⁽⁴⁾	..	..	0.12	0.11	0.03	0.03	0.42	0.32	0.12
32° 03' S, 115° 45' E									
Princess Royal Harbour ⁽⁵⁾	..	..	0.16	0.26	0.07	0.07	0.62	0.42	0.17
35° 08' S, 118° 00' E									
Adelaide ⁽⁶⁾	..	..	1.70	1.68	0.09	0.46	0.83	0.52	0.22
34° 51' S, 138° 30' E									
Williamstown, Victoria ⁽³⁾	..	..	0.81	0.10	0.09	0.03	0.29	0.22	0.10
37° 52' S, 144° 54' E									
Sydney, Fort Denison ⁽⁵⁾	..	..	1.62	0.40	0.35	0.12	0.47	0.30	0.13
33° 52' S, 151° 12' E									
Newcastle ⁽⁵⁾	..	..	1.60	0.39	0.35	0.13	0.51	0.29	0.15
32° 57' S, 151° 44' E									
Ballina, Richmond River ⁽⁶⁾	..	..	1.08	0.28	0.20	0.07	0.45	0.31	0.14
28° 52' S, 153° 33' E									
Brisbane ⁽⁵⁾	..	..	2.22	0.62	0.42	0.18	0.70	0.39	0.21
27° 20' S, 153° 10' E									
Cairns ⁽⁵⁾	..	..	1.96	1.12	0.66	0.30	0.87	0.41	0.29
16° 55' S, 145° 47' E									
Cooktown ⁽⁵⁾	..	..	1.87	0.79	0.45	0.21	0.29	0.30	0.10
15° 28' S, 145° 10' E									

Authorities.—⁽¹⁾ Report on the Tides, Currents and Tidal Streams in the southern part of Torres Strait, 1931, Hydrographic Department, Admiralty. ⁽²⁾ Supplied by the Hydrographic Department, Australian Navy. ⁽³⁾ R. W. Chapman and Captain Inglis, A.A.A.S. Reports, Vol. 9, p. 67, 1902. ⁽⁴⁾ H. B. Curlewis, Proc. R.S. of W.A., Vol. 1, p. 28, 1915. ⁽⁵⁾ Admiralty Tide Tables, Part 2 and also Special Publication No. 98 of the U.S. Coast and Geodetic Survey. ⁽⁶⁾ R. W. Chapman and Captain Inglis, A.A.A.S. Reports, Vol. 7, 1898.

8. *Explanation of Peculiarities of Tides from Results of Harmonic Analysis.*—A study of the preceding table will give a better understanding of the nature of the tides around the Australian coastline than any general description can possibly do, for it is on the relative magnitudes of the component waves that the idiosyncrasies of the tides depend. Consider for example the two principal semi-diurnal components M_2 and S_2 , due respectively to the moon and the sun. As we have seen we might expect from a comparison of the tide-producing forces that M_2 would be more than twice as great as S_2 . This is so in a number of cases but the ratio between the two is anything but constant, and there are six instances on the list, Frederick Point, Tuesday and Thursday Islands, in the north, and Fremantle, Princess Royal Harbour and Port Adelaide, in the south, where the two are practically equal. At Princess Royal Harbour, S_2 is even greater than M_2 . At spring tides the range, due to the semi-diurnal waves, is $2(M_2 + S_2)$, and at neaps, if the two are equal or nearly equal, they practically neutralize one another and cause no rise nor fall at all. This is what happens at Port Adelaide where at this period the recording gauge shows frequently little or nothing in the way of tide, in some cases the level of the water remaining almost constant for a whole day: in other cases one small tide occurs during the day. On each side of this the tide is markedly irregular both as regards time and height, and the apparent impossibility of saying when the tide will be at this particular period has presumably gained for it its name as "The Dodger". The further we get away from the neaps the more regular is the tide, until at spring tide it is fairly normal. The reason for this is that at the neaps the semi-diurnal tides are practically eliminated and the rise and fall of the water is then controlled by the diurnal tides which give only one tide a day and are here relatively large, K_1 having an amplitude about half that of M_2 or S_2 . At Princess Royal Harbour and at Fremantle similarly the sun has as great an effect as the moon and the semi-diurnal waves balance one another out at the neaps. The range of tide at both places is small and the diurnal tides are relatively large compared to S_2 and M_2 . Thus at Fremantle the amplitude of K_1 is 0.42 and O_1 is 0.32 compared with 0.12 for M_2 , and at Princess Royal Harbour K_1 is about four times as big as M_2 and O_1 is more than twice as great. The consequence is that over most of the month the diurnal components dominate the situation and there is evident only one observable tide in the 24 hours.

The peculiarity that the sun has a much bigger effect upon the tides in comparison with that of the moon than would be expected from the calculation of the relative tide-producing forces seems to hold good right round the coastline from Adelaide to Fremantle. The explanation given by Rollin A. Harris was that this was due to the fact that the body of water to the south of Australia, lying between it and Antarctica, has a depth such that its natural period of swing, about a line running east and west through the middle of it, is exactly twelve solar hours. A standing wave or continuous oscillation of this ocean is thus set up, keeping time with the sun, producing thus a much greater effect than other periodic forces that meet with no such harmonious response. More recent work has shown that this kind of oscillation of the water is not the way in which the water is likely to swing on a rotating earth, but nevertheless in a general way the explanation probably remains good, that the effect is due to the resonance of the Southern Ocean to these particular periodic forces.

At the time when this dominating influence of the sun was first made known by the analysis of the tides at Port Adelaide nothing corresponding was known elsewhere except at a port in the Gulf of Mexico. But since then the work of the Hydrographic Department of the Admiralty has shown that at the opposite corner of Australia, at Tuesday and Thursday Islands in the south of Torres Strait the same phenomenon occurs. There again the diurnal tides are greater than the semi-diurnals with the result that diurnal inequality is always very marked and there is apparently extraordinary irregularity at and near the period of neaps. Tidal curves for successive days on Tuesday Island illustrate how the sun controls the situation, for high water comes at almost the same hour day after day: at Thursday Island similarly there is nothing approaching the advance in time of 50 minutes a day common in other places. Our Australian sun certainly has a great influence on the land but few would expect this to extend to the surrounding waters.

At Port Hedland, on the north-west coast, we have a very different state of things. The table shows that the amplitude of the lunar semi-diurnal wave is 5.51 and that of the corresponding solar wave is 3.35, more in accordance with the tidal forces, and the amplitude of the largest of the diurnal waves, K_1 , is only 0.79. The spring range is here over 19 feet and as the neap range is generally over 4 feet it follows that the diurnal waves, the total range of which when all three are acting in unison is less than 3 feet, can never have the effect of changing the semi-diurnal character of the tide. All that the diurnal waves do is to cause an inequality in the two daily tides that amounts to a maximum of about 2 feet when the moon has its greatest declination. Here undoubtedly it is the moon that is the more potent influence and not the sun. Each day high water occurs about 50 minutes later than it did on the day before as is the normal behaviour where the tide follows the moon, and it is one of the few ports in Australia where the old method of predicting the time of high water, from a knowledge of the interval of time that elapses between high water and the last transit of the moon across the meridian, can be applied with even approximate accuracy. The "establishment" at Port Hedland, that is the interval of time between high water and the moon's transit, ranges between nine and one-quarter and twelve hours, following a very regular curve depending on the time of the moon's transit. No such regular curve applies however at places like Port Adelaide and Thursday Island where there are not the same number of tides in a month as there are transits of the moon.

Further along the northern coast, at Port Darwin, where there is a spring range of 24 feet, it will be seen from the table that the analysis is very similar to that for Port Hedland, the dominant waves are M_2 and S_2 , and M_2 is nearly twice as great as S_2 so that again the moon is in control, but in this case the diurnal tides are relatively more important. If we add together K_1 , O_1 and P_1 we get 3.49 as the amplitude or, say, 7 feet as the range of the resultant wave when all are acting in unison, which may be greater than the neap range due to the semi-diurnals M_2 and S_2 , so that we might expect occasional strange behaviour at this period. There are two tides a day, however, throughout the month but the diurnal inequality is very great, especially in the low waters. The greatest effect occurs in December and January, when the two high waters may differ by $4\frac{1}{2}$ feet and the two low waters by as much as 9 or 10 feet. But sometimes in March and April, when the moon is from 8 to 10 or from 20 to 24 days old, two tides amalgamate to form one long high water. When approaching this stage the two high waters get more and more nearly equal, and the two low waters more unequal, until at last the H.L.W. is equal in height to the two high waters on each side of it. At other times occasionally in September and early October the low high and the high low become of the same height and merge into one.

Speaking generally, as we proceed along the north coast from west to east, the range of the semi-diurnal components gets less and less while the range of the diurnal waves remains more nearly constant. The result is that at the eastern end the tides, as at Tuesday Island, are chiefly diurnal but at the western end of the coast the semi-diurnal components are the controlling forces and there are two tides a day throughout the month.

Along the east coast, at Sydney, Newcastle, Ballina and Brisbane, M_2 is about four times as great as S_2 , so that along this part of the coast the moon has a greater effect, relative to the sun, than might have been expected. The diurnal tides are sufficient all the way along the coast to give a pronounced diurnal inequality to the daily tides but they are not big enough, relative to M_2 and S_2 , to change the semi-diurnal character of the tides even at neaps, except at Cairns.

9. **Tidal Records.**—The responsibility for the keeping of tidal records lies with the State Governments who have generally vested it in the local Harbours and Marine Board Authorities. Unless a special series of observations is taken for the purpose, as is often done by the Hydrographic Department of the Australian Navy, it is only the records of self-recording tide gauges, which give a continuous trace of the level of the

water, that are of any value for tidal analysis in these waters where the diurnal elements play such a prominent part. Such gauges have so far been set up only at important ports, as will be seen from the following table:—

NUMBER OF SELF-RECORDING TIDE GAUGES.

State.	Number of Gauges.	Places where Fixed.
Queensland	2	Brisbane, Cairns
New South Wales ..	6	Ballina (Richmond River), Clarence River, Newcastle, Sydney (2), Wollongong*, Williamstown and Point Lonsdale
Victoria	2	Hobart
Tasmania	1	Port Adelaide, Port Pirie, Thevenard, Franklin Harbour (Cowell) and Whyalla*
South Australia ..	5	Albany, Bunbury, Fremantle and Port Hedland
Western Australia ..	4	Port Darwin
Northern Territory ..	1	

* At Wollongong and Whyalla gauges are established temporarily and will be moved on to other places when a sufficient length of record has been obtained to determine the tidal constants.

10. **Tidal Predictions.**—For ports where the tidal records have been subjected to harmonic analysis the Harbours Boards of Australia find it most convenient and economical to have their predictions made out on one of the tide-predicting machines of England or America. Tidal predictions made out in this way are published in the Admiralty Tide Tables for each year for the ports of Thursday Island, Port Darwin, Port Hedland, Port Adelaide, Port Phillip (Point Lonsdale), Sydney (Fort Denison), Newcastle and Brisbane Bar and the United States Coast and Geodetic Survey in their annual tide tables for the Pacific and Indian Ocean give predictions for Sydney, Melbourne (Williamstown), Port Adelaide and Port Hedland. In addition the Harbours Authorities in Victoria issue an annual pamphlet giving tidal predictions for the year for Williamstown and Port Phillip Heads, South Australia does the same for Port Adelaide, Western Australia for Port Hedland, and Queensland for Brisbane. In each of these cases tidal differences are given to permit of a reasonable estimate of the times of high water at other ports in the State. In Tasmania tide tables are issued by the Mersey and Launceston Marine Boards for their respective ports, but these are not based upon harmonic analysis.

The author wishes to express his obligations to the Hydrographic Department of the Australian Navy, to Mr. Curlew, Government Astronomer at Perth, and to the various Marine Boards and Harbours Authorities for generous assistance in gathering information.

CHAPTER XXIX. STATISTICAL ORGANIZATION AND SOURCES OF INFORMATION.

§ 1. General.

Development of Australian Statistics.—(i) *General.* An outline of the history and development of statistics in Australia was published in Year Book No. 19 (see p. 988) and previous issues, particular reference being made to the Crown Colony Blue Books, Statistical Registers, Prominent State Statisticians, Statistical Conferences, the Foundation of the Federal Bureau, and Uniformity of Statistical Control. It is not proposed to repeat this information in this issue.

(ii) *Present Organization.* The organization in respect of the collection, tabulation, etc., of statistical data as between the State and Federal Statistical Bureaux, and State and Federal Government Departments, was described in Official Year Book No. 19, p. 990. Limits of space preclude its repetition in this issue.

§ 2. Statistical Publications of Australia.

1. *General.*—The official statistical publications of Australia may be divided bibliographically into two main divisions, namely :—(1) Commonwealth publications dealing both individually and collectively with the several States of the Commonwealth ; and (2) State publications dealing with individual States only. Besides these there are many other reports, etc., issued regularly which, though not wholly statistical, necessarily contain a considerable amount of statistical information.

2. *Commonwealth Publications.*—Commonwealth publications may be grouped under two heads, viz. :—(i) Publications issued by the Commonwealth Statistician ; and (ii) Parliamentary and Departmental Reports and Papers.

(i) *Publications issued by the Commonwealth Statistician.* The following is a list of the principal statistical publications issued from the Commonwealth Bureau of Census and Statistics since its inauguration to December, 1938 :—

Australian Life Tables, 1901-1910. Australian Joint Life Tables, 1901-1910. Australian Life Tables, 1920-1922.

Australian Primary Industries.—Report prepared for the Empire Producers Conference, Sydney, March, 1938.

Census (1911) Bulletins.

Census (1911) Results.—Vols. I, II., and III., with Appendix "Mathematical Theory of Population."

Census (1921) Results.—Bulletins, Nos. 1 to 26. Parts I. to XVI., forming Vol. I., and Parts XVII. to XXIX., forming, with the Statisticians' Report, Vol. II.

NOTE.—PART XXVII., Life Tables.

Census (1933) Results.—Bulletins, Nos. 1 to 25. Parts I. to XIV., forming Vol. I., Parts XV. to XXVIII. forming Vol. II., and Parts XXIX. to XXXVI. Life Tables.

Dairying Summary, Monthly.—First issue, September, 1937.

Finance—Bulletins, 1907 to 1916-17 annually ; 1917-18 and 1918-19 (one vol.) ; 1919-20 and 1920-21 (one vol.) ; 1922-23 to 1937-38 annually.

Labour and Industrial Statistics.—Memoranda and Reports, various, to 1913.

Labour Report, annually, 1913 to 1937.

Local Government in Australia.—July, 1919.

Monthly Review of Business Statistics.—First issue, October, 1937.

Official Year Book of the Commonwealth of Australia—Annually, 1907 to present issue (1938).

Oversea Trade, annually, 1906 to 1937-38.

Pocket Compendium of Australian Statistics (formerly Statistical Digest), 1913, 1914, 1916, and 1918 to 1938 annually.

Population and Vital Statistics.—Bulletins and Reports, various. Commonwealth Demography, 1911 to 1937 annually.

Production.—Bulletins, annually, 1906 to 1935-36. In 1936-37 issued in two parts. Part I. Secondary Industries. Part II. Primary Industries and Total Recorded Production.

Professional Papers—Various. A full list will be found in Official Year Book No. 13, p. 3.

Quarterly Summary of Australian Statistics—first issue, No. 70, December, 1917, replacing *Monthly Summary of Australian Statistics* (Bulletins 1 to 69).

Social Insurance—Report to the Hon. the Minister of Trade and Customs, 1910.

Social Statistics—Bulletins, 1907 to 1915 annually, and 1918.

Superannuation for the Commonwealth Public Service—Report to the Hon. the Minister for Home Affairs, 1910.

Transport and Communication—Bulletins, 1906, 1908 to 1916 annually; 1919 to 1930 annually, and 1932 to 1937 annually.

Wages and Prices—January, 1932.

Wealth—The Private Wealth of Australia and its Growth as ascertained by various methods, together with a Report on the War Census in 1915.

Wheat Summary, Monthly.—First issue, July, 1936.

(ii) *Commonwealth Parliamentary and Departmental Reports and Papers*. Lists of the principal official reports and other documents containing statistical information issued from the inauguration of the Commonwealth were given in the Official Year Books up to No. 15, but limits of space preclude the incorporation of this information in the present volume.

3. **State Publications**.—The chief statistical publications of each State are set out hereunder. Limits of space preclude a further enumeration of the various Departmental Reports, statements of accounts, etc., issued by officials, boards, local government bodies, etc., in each State.

(a) New South Wales—Statistical Register (annual); Official Year Book of New South Wales (annual); Statesman's (Pocket) Year Book (annual); Statistical Bulletin (monthly to December, 1919, thereafter quarterly); Monthly Summary of Business Statistics.

(b) Victoria—Statistical Register (annual to 1916, then discontinued); Victorian Year Book (annual); Statistical Abstracts (quarterly to 1917).

(c) Queensland—Statistical Register (annual); Official Year Book, 1901; A.B.C. of Queensland Statistics (annual to 1936 then discontinued); The Queensland Year Book (annual, first issue 1937).

(d) South Australia—Statistical Register (annual); Official Year Book, 1912 and 1913; Statesman's Pocket Year Book (annual); Quarterly Summary of Statistics.

(e) Western Australia—Statistical Register (annual); Statistical Abstracts (quarterly, previously issued monthly to July, 1917); Pocket Year Book of Western Australia (annual).

(f) Tasmania—Statistical Register (annual); Pocket Year Book (annual).

§ 3. Select List of Representative Works Dealing with Australia.

(Compiled by the Librarian of the Commonwealth National Library.)

Under each heading a list is first given of the principal standard books which are still in print. This is followed by lists of selected books published during the current year and of official publications, excluding annual reports, of the same period. In the present list the period covered is 1st October, 1937, to 30th September, 1938. A few books which, though published earlier, were received after the compilation of the last issue are also included.

Technical works on Law, Medicine and the pure sciences are excluded.

The retail price in the country of publication is shown.

A copy of each of the works mentioned is preserved in the Library and access thereto may be had by any Commonwealth official or other authorized persons.

The Library also publishes an annual catalogue of Australian publications, official papers and books on Australia published overseas. Copies of this are obtainable from the Government Printer at a price of 2s.

General and Descriptive.

- AUSTRALIAN ENCYCLOPAEDIA, THE: *editors*, A. W. Jose, H. J. Carter and T. G. Tucker. 2 vols. (Angus & Robertson, 55s.) 3rd edition, Sydney, 1926-27.
- AUSTRALIAN NATIONAL REVIEW, THE: [monthly]. (Canberra Publishing Co., 21s. per annum). Canberra, 1917 to date.
- CONIGRAVE, G. P. North Australia. (Cape, 10s. 6d.). London, 1936.
- HANCOCK, W. K. Australia. (Benn, 1ss.). London, 1930.
- MADIGAN, C. T. Central Australia. (Oxford University Press, 7s. 6d.). London, 1936.
- OFFICIAL YEAR BOOK OF THE COMMONWEALTH OF AUSTRALIA, Nos. 1 to date. (Government Printer, 5s. per issue). Canberra, 1908 to date.
- TAYLOR, T. G. Australia a geography reader. (Rand, McNally, \$1.50). New York, 1931.
- WALKABOUT: Australia and the South Seas. (Australian National Travel Association, 12s. per annum). Melbourne, 1931 to date.
- WOOD, T. Colders: A Personal Record of a Journey from Essex, in England, to Australia. (Oxford University Press, 7s. 6d. and 3s. 6d.). London, 1934.

RECENT PUBLICATIONS.

- AUSTRALIA, 1788-1938: produced by Oswald L. Ziegler under the authority of Australia's 150th Anniversary Celebrations Council. (Simmons Ltd., 30s.). Sydney, 1938.
- DENNING, W. Capital city. (Pulblist, 5s.). Sydney, 1938.
- DOW, D. M. Australia advances. (Funk & Wagnalls, \$2.). New York, 1938.
- GLASS, D. Australian fantasy: [photographs]. (Hutchinson, 12s. 6d.). London, 1937.
- HATFIELD, W. I find Australia. (Oxford University Press, 7s. 6d.). London, 1937.
- IDRIESS, I. L. Over the range: sunshine and shadow in the Kimberleys. (Angus & Robertson, 6s.). Sydney, 1937.
- RATCIFF, F. N. Flying fox and drifting sand: the adventures of a biologist in Australia. (Chatto & Windus, 16s.). London, 1938.
- URTON, S. Australia's empty spaces. (Allen & Unwin, 10s. 6d.). London, 1938.

Territories Outside Australia.

- EGGLESTON, F. W., *editor*. The Australian Mandate for New Guinea. (Melbourne University Press 5s.). Melbourne, 1928.
- ELLIS, A. F. Ocean Island and Nauru: their story. (Angus & Robertson, 7s. 6d.). Sydney, 1935.
- FIRTH, R. Art and life in New Guinea. (Studio, 10s. 6d.). London, 1936.
- GROVES, W. C. Native education and culture-contact in New Guinea. (Melbourne University Press, 6s.). Melbourne, 1936.
- OFFICIAL HANDBOOK OF NEW GUINEA. (Government Printer, 5s.). Canberra, 1937.
- PACIFIC ISLANDS YEAR BOOK, THE: *edited by* R. W. Robson. (Pacific Publications, 7s. 6d. and 9s. 6d.). Sydney, 1935. (1939 edition to be issued shortly.)

See also the annual reports of the Administrators of the various Territories.

RECENT PUBLICATIONS.

- HIDES, J. G. Savages in serge. (Angus & Robertson, 8s. 6d.). Sydney, 1938.

History.

- CAMBRIDGE HISTORY OF THE BRITISH EMPIRE, vol. 7, pt. 1.: Australia. (Cambridge University Press, 30s.). Cambridge, 1933.
- HARRIS, H. L. Australia in the making. (Angus & Robertson, 3s.). Sydney, 1936.
- HISTORICAL RECORDS OF AUSTRALIA: *editor*, J. F. Watson (in progress). (Commonwealth Parliament Library Committee, Canberra, 12s. 6d. per vol.) Sydney, 1914 to date. (34 vols. have so far appeared. Publication has been suspended since 1925.)
- O'BRIEN, Rev. E. M. The foundation of Australia (1786-1800): a study in English criminal practice and penal colonization in the eighteenth century. (Sheed & Ward, 12s. 6d.). London, 1937.
- RHODES, F. C. Pageant of the Pacific: being the maritime history of Australasia. 2 vols. (F. J. Thwaites Pty., 42s.). Sydney, 1937.
- WOOD, G. A. The Discovery of Australia. (Macmillan, 25s.). London, 1922.

RECENT PUBLICATIONS.

- DAKIN, W. J. Whalemen adventurers: the story of whaling in Australian waters and other southern seas related thereto, from the days of sail to modern times: 2nd edition. (Angus & Robertson, 12s. 6d.). Sydney, 1938.
- ELDERSHAW, M. Barnard. Phillip of Australia: an account of the settlement at Sydney Cove, 1788-92. (Harlap, 15s.) London, 1938.
- EMERY, J. The discovery of Australia including the Mandated Territory of New Guinea: a chronological summary of voyages of discovery up till the foundation of Australia (1525-1788): [published with wall map]. (H. P. C. Robinson, 50s.). Sydney, 1938.
- EVATT, H. V. Rum rebellion: a story of the overthrow of Governor Bligh by John Macarthur and the New South Wales Corps. (Angus & Robertson, 12s. 6d.). Sydney, 1938.
- FRASER, A. D., *editor*. This century of ours: being an account of the origin and history during one hundred years of the house of Dangar, Gedy & Mallock Limited, of Sydney. (Dangar, Gedy & Mallock, 7s. 6d.). Sydney, 1938.
- MACKANESS, G. Admiral Arthur Phillip, founder of New South Wales, 1783-1814. (Angus & Robertson, 30s.). Sydney, 1937.
- MADGWICK, R. B. Immigration into Eastern Australia, 1788-1851. (Longmans, 12s. 6d.). London, 1937.
- NORMAN, L. Pioneer shipping of Tasmania: whaling, sealing, piracy, shipwrecks, etc., in early Tasmania. (J. Walsh & Sons, 10s. 6d.). Hobart, 1938.
- RUTTEN, O., *editor*. The First Fleet: the record of the foundation of Australia from its conception to the settlement at Sydney Cove. (Golden Cockerel Press, 63s.). London, 1937.

European War, 1914-18.

- MONASH, SIR, J. The Australian victories in France in 1918; 2nd edition. (Angus & Robertson; 6s.). Sydney, 1936.
- NORTH, J. Gallipoli: the fading vision. (Faber, 15s.). London, 1936.
- OFFICIAL HISTORY OF AUSTRALIA IN THE WAR OF 1914-18: C. E. W. Bean, *editor* (in progress). (Angus & Robertson, 21s. per vol. Vols. 8, 10, 11, 18s.) Sydney, 1921 to date. (Vols. 1-5, 7-12 have so far appeared.)

Biography.

- BIOGRAPHICAL HANDBOOK AND RECORD OF ELECTIONS FOR THE PARLIAMENT OF THE COMMONWEALTH, (Commonwealth Parliament Library Committee, 10s. 6d.). Canberra, 1938.
(A new issue is produced for each Federal Parliament).
- JOHNS, F. An Australian Biographical Dictionary. (Macmillan, 21s.). Melbourne, 1934.
- WHO'S WHO IN AUSTRALIA: 10th edition: *edited by* J. A. Alexander. (Herald Press, 15s.). Melbourne, 1938.

RECENT PUBLICATIONS.—

- DAVID, M. E. Professor David: the life of Sir Edgeworth David. (Edward Arnold, 14s. 6d.). London, 1937.
- DAWSON, W. R., *editor*. Sir Grafton Elliott Smith: a biographical record by his colleagues. (Cape, 12s. 6d.). London, 1938.
- SHIEL, B and SIMPSON, C. Caesar of the skies: the life story of Sir Charles Kingsford-Smith, M.C., A.F.C. (Cassell, 8s. 6d.). London, 1937.

Constitution and Administration.*

- AUSTRALIA: *Law: Statutes*. The acts of the Parliament of the Commonwealth of Australia passed from 1901 to 1935 and in force on 1st January, 1936: to which is prefixed the Commonwealth of Australia Constitution Act. 4 vols. (Government Printer, £6. 5s.). Canberra, 1936.
- AUSTRALIA:—*Royal Commission on the Constitution of the Commonwealth*. Report. (Government Printer, 16s. 9d.). Canberra, 1929.
- Report of proceedings and minutes of evidence, 2 vols. (Government Printer, £3 12s.). Canberra, 1929.
- AUSTRALIAN DIGEST, THE, 1825-1933: Being a Digest of the Reported Decisions of the Australian Courts and of Australian Appeals to the Privy Council; *editors*, R. Sugerman and others: vols. 1-16. (Law Book Co., 60s. per vol.). Sydney, 1934 to date. (To be completed in about 22 vols.).
- KERR, D. The law of the Australian Constitution. (Law Book Co., £2). Sydney, 1925.
- KNOWLES, G. S. The Commonwealth of Australia Constitution Act (as altered to 1st July, 1936), and the acts altering the constitution: with notes, tables, indexes and appendices. (Government Printer, 15s.). Canberra, 1937.
- MELBOURNE, A. C. V. Early Constitutional Development in Australia. [Vol. 1]. New South Wales, 1788-1856. (Oxford University Press, 25s.). London, 1934.
- WOOD, F. L. The Constitutional Development of Australia. (Harrap, 10s. 6d.). Sydney, 1933.
- WYNES, W. A. Legislative and executive powers in Australia: being a treatise on the legislative and executive powers of the Commonwealth and States of Australia under the Commonwealth of Australia Constitution Act. ((Law Book Co., 32s. 6d.). Sydney, 1936.

OFFICIAL PUBLICATIONS.

- AUSTRALIA:—*Law: Statutes*. Consolidation of Commonwealth acts 1901-1935 and constitution supplementary annotations to 31st December, 1937. (Government Printer, 10s.). Canberra, 1938.
- NATIONAL INSURANCE COMMISSION. National insurance: a summary of the principles of the *Australian National Health and Pensions Insurance Act* 1938. (Government Printer). Canberra, 1938.

Political History and International Relations.

- AUSTRAL-ASIATIC BULLETIN: a two-monthly review. (Australian Institute of International Affairs, Victorian division, 6s. per annum). Melbourne, 1937 to date.
- AUSTRALIAN QUARTERLY, THE: A Quarterly Review of Australian Affairs. (2s. per issue). Sydney, 1929 to date.
- CURRENT NOTES ON INTERNATIONAL AFFAIRS: [fortnightly]. (Department of External Affairs). Canberra, 1936 to date.
- DUNCAN, W. G. K., and JAMES, C. V., *editors*. The future of immigration into Australia and New Zealand. (Angus & Robertson, 6s.). Sydney, 1937.
- LYNG, J. S. Non-Britishers in Australia. 2nd edition. (Melbourne University Press, 6s.). Melbourne, 1935.
- SMITH, A. N. Thirty Years: The Commonwealth of Australia, 1901-1931. (Brown, Prior, 12s. 6d.). Melbourne, 1933.

RECENT PUBLICATIONS.

- BALL, W. M., *editor*. Press, radio and world affairs: Australia's outlook: a report issued under the auspices of the Victorian Branch of the Institute of Pacific Relations. (Melbourne University Press, 2s.). Melbourne, 1938.
- DUNCAN, W. G. K., *editor*. Australia's foreign policy. (Angus & Robertson, 5s.). Sydney, 1938.

* It should be noted that several important books on this subject are out of print, and have therefore not been included.

Economic and Social Conditions.

- BRIGDEN, J. B. and others. *The Australian Tariff: An Economic Enquiry.* (Melbourne University Press, 3s. 6d.). Melbourne, 1929.
- COPLAND, D. B. *Australia and the World Crisis, 1929-1933.* (Cambridge University Press, 9s.). Cambridge, 1934.
- ECONOMIC RECORD. *THE: The Journal of the Economic Society of Australia and New Zealand.* (Melbourne University Press, 10s. per annum). Melbourne, 1925 to date.
- SHANN, E. O. G. *An Economic History of Australia.* (Cambridge University Press, 18s.). Cambridge, 1930.
- MACLAURIN, W. R. *Economic planning in Australia, 1929-1938.* (P. S. King, 15s.). London, 1937.
- WINDETT, N. *Australia as Producer and Trader, 1920-1932.* (Oxford University Press, 15s.). London, 1933.

RECENT PUBLICATIONS.

- CLARK, C. G. and CRAWFORD, J. G. *The national income of Australia.* (Angus & Robertson, 3s. 6d.). Sydney, 1938.
- COPLAND, D. B., and JAMES, C. V., editors. *Australian trade policy: a book of documents, 1932-1937.* (Angus & Robertson, 8s. 6d.). Sydney, 1937.
- HARRIS, H. L. *Australia's national interests and national policy.* (Melbourne University Press, 5s.). Melbourne, 1938.

OFFICIAL PUBLICATIONS.

- AUSTRALIA. Advisory council on nutrition. Fourth report. (Government Printer). Canberra, 1937.
- Same. Fifth report. (Government Printer). Canberra, 1938.
- Same. Final report. (Government Printer). Canberra, 1938.
- Committee appointed to investigate the facilities available for small loans. Report. (Government Printer, 9d.). Canberra, 1938. No. 25 of 1937-38.
- National health and medical research council. Report[s], first session . . . 1st to 3rd February 1937 [to] fourth session . . . 24th and 25th May, 1938. (Government Printer). Canberra—1937-38.
- NEW SOUTH WALES. Vocational guidance survey of unemployed young men. Report. (Government Printer.) Sydney, 1938.
- SOUTH AUSTRALIA. Royal commission on betting laws and practice. Report . . . together with appendix and minutes of evidence. (Government Printer). Adelaide, 1938. No. 70 of 1938.
- Special committee appointed to inquire into the present ration scale . . . Report. (Government Printer). Adelaide, 1938. No. 56 of 1938.
- TASMANIA. State finance committee. Statement presented to the Commonwealth grants commission on behalf of the government of Tasmania. (Government Printer). Hobart, 1938. (Studies of the Tasmanian economy, No. 5.)
- State finance committee. The Tasmanian economy in 1937-38. A survey . . . by F. R. E. Mauldon . . . assisted by D. L. Anderson. (Government Printer). Hobart, 1938. (Studies in the Tasmanian economy, No. 6.)
- VICTORIA. Housing investigation and slum abolition board. First (Progress) report with appendices and supplements: slum reclamation; housing for the lower-paid worker; short-term programme. (Government Printer, 8s.). Melbourne, 1937. No. 4 of 1937. (Second session).
- Royal commission on industrial life assurance. Report . . . together with appendices and minutes of evidence. (Government Printer, 1s. 6d.). Melbourne, 1938. No. 6 of 1938.
- WESTERN AUSTRALIA. Parliament: Legislative Assembly: Select committee to which the State government insurance office bill was referred. Report [and evidence]. (Government Printer). Perth, 1937. No. A1 of 1937.
- Royal commission on youth employment and the apprenticeship system. Report [and evidence]. (Government Printer). Perth, 1938. No. 4 of 1938.

Industrial Organization.

- FOENANDER, O. de R. *Towards industrial peace in Australia: a series of essays in the history of the Commonwealth Court of conciliation and arbitration.* (Melbourne University Press, 21s.). Melbourne, 1937.
- SUTCLIFFE, J. T. *History of Trade Unionism in Australia.* (Macmillan, 6s.). Melbourne, 1921.

RECENT PUBLICATIONS.

- MAULDON, F. R. E., ANDERSON, D. L., and MARKS, M. W. *Mechanization in Australian industries.* (University of Tasmania, 5s.). Hobart, 1938.

Industries, Resources and Trade.

- AUSTRALIA TO-DAY: Special Number of the Australian Traveller. (United Commercial Travellers' Association of Australia, 2s. per issue). Melbourne, 1905 to date.
- MCAIR, W. A. *Radio advertising in Australia.* (Angus & Robertson, 35s.). Sydney, 1937.

RECENT PUBLICATIONS.

- COPLAND, D. B., and JAMES, C. V., editors. *Australian marketing problems: a book of documents, 1932-1937.* (Angus & Robertson, 10s. 6d.). Sydney, 1938.
- DUNCAN, W. G. K., editor. *Marketing Australia's primary products.* (Angus & Robertson, 2s.). Sydney, 1937.
- MADE IN AUSTRALIA, 1788-1938. (John Fairfax & Sons, 2s. 6d.). Sydney, 1938.

OFFICIAL PUBLICATIONS.

- AUSTRALIA. Board of inquiry . . . into the land and land industries of the Northern Territory of Australia. [W. L. Payne, Chairman]. Report. (Government Printer, 4s. 6d.). Canberra, 1938. No. 4 of 1937-38.
- Commerce Department. Report on Australia's trade with eastern countries, during 1936-37 (Government Printer). Canberra, 1938.
- Committee appointed to report [upon] secondary industries and research . . . Secondary industries: testing and research—extension of activities of Council for scientific and industrial research: report. (Government Printer, 2s.). Canberra, 1938. No. 39 of 1937-38.
- Tariff board. Motor vehicles: question of the best means of giving effect to the government's policy of establishing in Australia the manufacture of engines and chassis of motor vehicles, with consideration given to the general national and economic aspect. (Government Printer, 2s. 3d.). Canberra, 1938. No. 67 of 1937-38.
- BRITISH EMPIRE PRODUCERS' CONFERENCE, Sydney, 1938. Report of the proceedings. (Government Printer). Sydney, 1938.
- MENZIES, Rt. Hon. R. G. Australia's trade relations and the proposed revision of the Ottawa agreement: statement. (Government Printer, 6d.). Canberra, 1937. No. 3 of 1937-38.
- ROGERS, L. J. Report . . . on the possibility of expanding the power alcohol industry in Australia: dated 21st July, 1937. (Government Printer, 9d.). Canberra, 1938. No. 39 of 1937-38.
- WIMPERIS, H. E. Report on the inauguration of aeronautical research in Australia. (Government Printer, 1s.). Canberra, 1938. No. 29 of 1937-38.
- NEW SOUTH WALES. Parliament: Legislative assembly: Select committee on the tobacco industry in New South Wales. Report, together with the proceedings . . . and minutes of evidence. (Government Printer, 5s. 6d.). Sydney, 1937. No. 131 of 1937-38.
- RENDEL, PALMER and TRITTON, consulting engineers. Report on electrical development in New South Wales, 1937. (Government Printer). Sydney, 1937.
- STEVENS, Hon. B. S. B. Oversea marketing of certain primary products of New South Wales: report. (Government Printer, 4s. 9d.). Sydney, 1937. No. 93 of 1937-38.
- SOUTH AUSTRALIA. Parliamentary standing committee on public works. First progress report on drainage of the River Murray irrigation areas (Puddletown Lake), together with evidence. (Government Printer). Adelaide, 1938. No. 32 of 1938.
- WESTERN AUSTRALIA. Royal commission on light lands and poison infested lands. Report (Government Printer). Perth, 1938. No. 11 of 1938.
- DUNNE, T. C. Pasture development in Western Australia, 1931-1936. (Government Printer). Perth, 1938.

Natural History.

- AUDAS, J. W. The Trees of Australia. (Whitcombe & Tombs, 21s.). Sydney, 1934.
- CAYLEY, N. W. What Bird is That? A Guide to the Birds of Australia. (Angus & Robertson, 12s. 6d.). Sydney, 1931.
- DAVID, Sir T. W. E. Explanatory Notes to accompany a New Geological Map of the Commonwealth of Australia. (Angus & Robertson, 20s.). Sydney, 1932.
- EWART, A. J. Flora of Victoria. (Melbourne University Press, 30s.). Melbourne, 1930.
- GRIMWADE, W. R. Anthography of the Eucalypts. (Angus & Robertson, 42s.). 2nd edition, Sydney, 1930.
- ROUGHLEY, T. C. Wonders of the Great Barrier Reef. (Angus & Robertson, 12s. 6d.). Sydney, 1936.
- TILLYARD, R. J. Insects of Australia and New Zealand. (Angus & Robertson, 21s.). Sydney, 1926.

RECENT PUBLICATIONS.

- CAYLEY, N. W. Australian parrots: their habits in the field and aviary. (Angus & Robertson, 12s. 6d.). Sydney, 1938.
- LITTLEJOHNS, R. T. The lyre-bird: Australia's wonder-songster. (Angus & Robertson, 4s. 6d.). Sydney, 1938.

Aborigines.

- BASEDOW, H. The Australian Aboriginal. (F. W. Preece & Son, 21s.). Adelaide, 1925.
- BROWN, A. R. The Social Organization of Australian Tribes. (Australian National Research Council, 5s.). Sydney, 1931.
- CHEWINGS, C. Back in the stone age: the natives of Central Australia. (Angus & Robertson, 7s. 6d.). Sydney, 1930.
- NEEDHAM, Rev. J. S. White and Black in Australia. (S.P.C.K., 3s. 6d.). London, 1935.
- OCEANIA: a journal devoted to the study of the native peoples of Australia, New Guinea and the islands of the Pacific Ocean. [Quarterly]. (Australian National Research Council, 20s. per annum). Sydney, 1930 to date.
- SPENCER, Sir. W. B. Wanderings in Wild Australia. 2 vols. (Macmillan, 42s.). London, 1928.
- SPENCER, Sir. W. B., and GILLEN, F. J. The Arunta. 2 vols. (Macmillan, 36s.). London, 1927.
- See also the Annual Reports of the Administrator of the Northern Territory and of the Aboriginal Departments in Queensland, South Australia and Western Australia.

RECENT PUBLICATIONS.

- DAVIDSON, D. S. A preliminary consideration of aboriginal Australian decorative art. (American Philosophical Society, \$2). Philadelphia, 1937.
- ELKIN, Rev. A. P. The Australian aborigines. (Angus & Robertson, 8s. 6d.). Sydney, 1938.
- MCCARTHY, F. D. Australian aboriginal decorative art. (Australian Museum, 2s. 6d.). Sydney, 1938.
- MCKEOWN, K. C. The land of the Byamsee: Australian wild life in legend and fact. (Angus & Robertson, 6s.). Sydney, 1938.
- MONTAGU, M. P. ASHLEY. Coming into being among the Australian aborigines. (Routledge, 7s. 6d.). London, 1937.
- WARNER, W. L. A black civilization: a social study of an Australian tribe. (Harper, \$5). New York, 1937.

OFFICIAL PUBLICATIONS.

- COMMONWEALTH. Conference of Commonwealth and State aboriginal authorities. [Report of] initial conference [on] aboriginal welfare . . . held at Canberra, 21st to 23rd April, 1937. (Government Printer). Canberra, 1937.
- THOMSON, D. F. Recommendations of policy in native affairs in the Northern Territory of Australia. (Government Printer, 6d.). Canberra, 1938. No. 56 of 1937-38.

Education.

- BROWNE, G. S. *Education in Australia: A comparative Study of the Educational Systems of the Six Australian States.* (Macmillan, 21s.). London, 1927.
 (OLF, P. R., *editor.* *The Education of the Adolescent in Australia.* (Melbourne University Press, 10s.). Melbourne, 1935.
 CRAMER, J. F. *Australian Schools through American Eyes.* (Melbourne University Press, 2s.). Melbourne, 1936.
 MUNN, R., and PITT, E. R. *Australian Libraries: A Survey of Conditions and Suggestions for their Improvement.* (Australian Council for Educational Research, 3s.). Melbourne, 1935.

For records of specialized research, see the various publications of the Australian Council for Educational Research, Melbourne.

RECENT PUBLICATIONS.

- DALLEN, R. A. *The University of Sydney: its history and progress from its foundation in 1852 to 1938, together with short biographical sketches of its ten Chancellors: [3rd edition].* (Angus & Robertson, 5s.). Sydney, 1938.
 KANDEL, I. L. *Impressions of Australian education.* (Australian Council for Educational Research, 6d.). Melbourne, 1938.
 LINZ, C. C. *The establishment of a national system of education in New South Wales.* (Melbourne University Press, 4s.). Melbourne, 1938.
 PORTUS, Rer. G. V. *Free, compulsory and secular: a critical estimate of Australian education: being three Joseph Payne lectures for 1936-37.* (Oxford University Press, 2s.). London, 1937.

Literature.†

CRITICAL AND ANTHOLOGIES.

- ANNUAL CATALOGUE OF AUSTRALIAN PUBLICATIONS. (Commonwealth National Library, 2s. *per issue*). Canberra, 1936 to date.
 COWLING, S. H., and MAURICE, F. (i.e., F. L. T. WILMOT), *compilers.* *Australian essays.* (Melbourne University Press, 4s. 6d.). Melbourne, 1935.
 GREEN, H. M. *Outline of Australian Literature.* (Whitcombe & Tombs, 5s.). Sydney, 1930.
 MACKANESS, G., *compiler.* *Australian Short Stories.* (Dent, 3s. 6d.). 2nd edition. London, 1932.
 MACKANESS, J. S., and MACKANESS, G., *compilers.* *The Wide Brown Land: A New Anthology of Australian Verse.* (Angus & Robertson, 4s. 6d. and 2s. 9d.). Sydney, 1934.
 SERLE, P., *compiler.* *Bibliography of Australasian Poetry and Verse.* (Melbourne University Press, 36s.). Melbourne, 1925.

RECENT PUBLICATIONS.

- COOMBS, A. J. *Some Australian poets.* (Angus & Robertson, 3s. 6d.). Sydney, 1938.
 ELDERSHAW, M. Barnard. *Essays in Australian fiction.* (Melbourne University Press, 6s.). Melbourne, 1938.
 KENDALL, F. C. *Henry Kendall: his later years . . . a refutation of Mrs. Hamilton-Grey's book "Kendall, our God-made chief".* (Author, 1s.). Sydney, 1938.

Poetry.

RECENT PUBLICATIONS.

- FINNIN, M. *A beggar's opera.* (W. A. Hamer, 3s. 6d.). Melbourne, 1938.
 MCCRAIG, R. *Vaudeville.* (Author, 21s.). Sydney, 1938.
 MANN, L. *The plumed voice.* (Angus & Robertson, 5s.). Sydney, 1938.
 MATTHEWS, H. *Vintage.* (The Publicist, 21s.). Sydney, 1938.
 NAPIER, S. E. *Underneath the bough: a book of verses.* (W. C. Penfold, 3s. 6d.). Sydney, 1937.
 NEILSON, J. S. *Beauty imposes.* (Angus & Robertson, 3s. 6d.). Sydney, 1938.

Fiction.

RECENT PUBLICATIONS.

- DARK, E. *Sun across the sky.* (Collins, 7s. 6d.). London, 1937.
 HERBERT, N. *Capricornia.* (The Publicist, 6s.). Sydney, 1938.
 MASEL, P. *In a glass prison: a novel.* (Nelson, 7s. 6d.). London, 1937.
 SIMPSON, H. de G. *Under Capricorn.* (Heinemann, 7s. 6d.). London, 1937.

Art.*

- ART IN AUSTRALIA: A Quarterly Magazine. (J. Fairfax & Sons, 5s. *per issue*). Sydney, 1916 to date.
 MOORE, W. *The Story of Australian Art: From the Earliest Known Art of the Continent to the Art of To-day.* 2 vols. (Angus & Robertson, 25s.). Sydney, 1934.

RECENT PUBLICATIONS.

- AUSTRALIA'S achievement in art: special number of "Art in Australia", issued in commemoration of Australia's 150th Anniversary: [introduction by L. Lindsay]. (John Fairfax & Sons, 21s.). Sydney, 1937.
 LAMBERT, A. B. *Thirty years of an artist's life: the career of G. W. Lambert.* (Society of Artists, 21s.). Sydney, 1938.
 STURGESS, R. W. *The life and work of R. W. Sturges: foreword by Robert Henderson Croll.* (Fine Arts Society, 42s.). Melbourne, 1938.
 WILSON, W. H. *Grecian and Chinese Architecture [50 drawings].* (Author, £6 6s.). Melbourne, 1937.

* Books on the work of particular artists have been excluded from the list, though many of these, e.g., those published by Art in Australia, are indispensable for the study of Australian Art.

† The works of individual authors have not been included in the first section of this list. References to them will be found in Green and Serle.

DIARY OF PRINCIPAL ECONOMIC EVENTS.

1931.

The events of 1931 and the years immediately following were mainly attempts to meet the extraordinary position created by the economic depression which began in 1929-30.

22nd January.—The Commonwealth Court of Arbitration after a protracted hearing made a comprehensive survey of the economic position (see *The Crisis*, pp. 102-145), and awarded a 10 per cent. reduction in all railway wages which were the subject of the case, operative from the 1st February, 1931. This judgment was followed by others, making the same reduction in practically all wages and salaries which were determined by Federal award. This reduction of 10 per cent. was in addition to the "automatic" adjustment to falling prices, and made the total reduction over 20 per cent. on the wage rates of 1929. Wages under State jurisdiction were gradually brought into line, except in New South Wales where no adjustment was made in State awards for some time.

January to February.—*Premiers' Conference, Canberra and Melbourne.*—A committee of Treasury officers presented a report analysing the financial and economic position. The report preserved much of the deflationary tone of an earlier statement by Sir Otto Niemeyer of the Bank of England, and commented adversely on the high exchange rate. Curtailment of Government expenditure was strongly urged, but no definite reductions were proposed. This report was signed by four of the State Under-Treasurers only.

Mr. Lang (Premier of New South Wales) proposed as an alternative the reduction of internal interest on Government bonds to 3 per cent., the cessation of oversea interest payments pending agreement for a similar reduction, and the substitution for the gold standard of "currency based on the wealth of Australia".

The Conference rejected Mr. Lang's motion and resolved to aim at budget equilibrium in three years, reducing salaries and wages on a cost of living basis, taxing interest on Government bonds at the source and putting on the banks the responsibility of reducing interest rates.

January.—*The Unpegging of the Exchange.*—Australian exchange with sterling had been held by the banks at 8½ per cent. discount since 9th October, 1930. On 5th January, 1931, on the initiative of the Bank of New South Wales, the rate was allowed to move up until it reached 30 per cent. on 20th January, 1931, and it was held at that figure notwithstanding some competition at higher rates by "outside" dealers.

2nd April.—Letter from the Commonwealth Bank to the Chairman of the Loan Council, stating that it was unable to finance Governments beyond the outstanding £25,000,000 in London, and a limit of £25,000,000 in Australia. This limit in Australia was bound to be, and was, in fact, reached within three months.

25th May to 11th June.—*Premiers' Conference, Melbourne.*—The Conference had before it a report of a Committee of economists and Treasury officers, of which Professor D. B. Copland was Chairman. This report proposed a definite scheme of reduction of expenditure of all kinds, including wages, salaries, pensions and interest. The reduction aimed at was from 20 to 25 per cent. below the 1928-29 level, based on the actual reduction in wage rates in Federal awards of something over 20 per cent. The aim of the proposals was to reduce total Government deficits in 1931-32 from a prospective £40,000,000 to some figure not much above £10,000,000. This report formed the basis of the "Premiers' Plan," and was adopted on the 10th June, 1931.

19th June.—*Gold Position.*—The minimum proportion of gold to be held against notes was reduced from 25 per cent. to 15 per cent., with provision for gradual restoration over a term, not exceeding five years to 25 per cent. This amendment of the Commonwealth Bank Act was put through by general consent to permit further shipments of gold to meet short-term debt in London.

26th June.—*Reduction of Bank Deposit and Advance Rates.*—The Commonwealth Bank and the trading banks reduced by 1 per cent. the rates on new fixed deposits or renewals.

1st July.—The Commonwealth Bank reduced rates for advances by 1 per cent. The other trading banks by successive small steps fell into line.

The Commonwealth and State Savings Banks reduced interest rates by 1 per cent., except in Victoria where successive reductions of one-half, one-quarter, and again one-quarter of 1 per cent. were made by the State Savings Bank.

July-August.—*Conversion Loan.*—A conversion loan was launched to reduce the rate of interest on all internal Government debt by approximately 2½ per cent.

The results of the conversion plan will be best understood by consideration of the following figures:—

	£
Total Internal public debt at 31st July, 1931	557,998,904
Conversion applications notified	510,331,153
Dissents notified	16,655,769
Conversion effected automatically (in absence of notification of either conversion or dissent)	31,011,982
	557,998,904

The amount held by dissentients was thus a little less than 3 per cent. of the total outstanding public debts.

The annual savings in interest to all the Governments for a full year in consequence of the conversions effected were calculated to be about £6,500,000, but some part of this relief was to be passed on to settlers and others debtors to the State Governments.

31st July.—A reduction in the rate of interest on Treasury Bills from 6 per cent. to 4 per cent. was announced.

10th to 14th August, and 1st to 12th September.—*Premiers' Conference, Melbourne.*—The several Governments reported their attempts to adjust their budgets to the "Premiers' Plan." After some allowance had been made for unforeseen contingencies, the new budgets appeared on the whole to be in fair conformity with the "Plan," though for some of the State Governments there was an appreciable gap. Measures were agreed upon for applying compulsion to the small amount of Debt which had not been converted, and provision was made for the redemption from the National Debt Sinking Fund of securities held by persons in necessitous circumstances.

21st September.—Great Britain ceased payment in gold, and sterling depreciated over 20 per cent. in terms thereof, thus making a corresponding reduction in the real burden of interest payments by Australian Governments, which are for the most part fixed on sterling. Australian exchange was kept for the time at the old discount of 30 per cent. with sterling, so that no direct relief to Australian budgets ensued.

30th October.—The Commonwealth Government made provision for the payment of a bounty of 4½d. per bushel on wheat produced in the 1931-32 season.

27th November.—Further reduction in bank deposit rates of one-half and one-quarter of 1 per cent. on short and long-term deposits respectively.

3rd December.—*Exchange.*—Commonwealth Bank Board resolved to take responsibility for the regulation of sterling exchange and to announce rates for the coming week every Friday. The rate was fixed at £125 for £100 sterling, in place of £130, which had been the official bank rate since 29th January. It may be noted that sterling in the preceding week had depreciated from about 20 per cent. discount on gold to about 30 per cent. For some weeks the banks had been rationing their purchases of exchange, with the result that the "open market" rate had fallen considerably below the "carded" rates.

1932.

January.—Letter from the Commonwealth Bank to the Chairman of the Loan Council calling attention to the growth of the floating debt, and suggesting that "national finance" might be refused.

28th January to 5th February.—*Premiers' Conference, Melbourne.*—A serious drift in State finances was revealed. After receiving assurances that further economies would be sought, the Commonwealth Bank agreed to provide further assistance for the small States. During the meetings, New South Wales announced its default on interest payments due in London, New York and Australia. The payments were met, after a short delay, by the Commonwealth Government.

February.—A beginning was made in the revision of the tariff and the removal of prohibitions on imports.

8th March.—Further reductions in bank deposit rates of one-half per cent. on 3 months' deposits and one-quarter of 1 per cent. on six and twelve months' deposits.

12th March.—The Financial Agreements (Commonwealth Liability) Act resolved all doubts as to the liability of the Commonwealth for debts taken over in pursuance of the Financial Agreement.

March to May.—The Financial Agreements Enforcement legislation was enacted, giving the Commonwealth drastic powers to attach State revenues and other moneys in the event of failure by a State to pay to the Commonwealth moneys due under the Financial Agreement. The High Court decided in favour of the Commonwealth on a writ for recovery of interest paid on behalf of New South Wales. The New South Wales Government then contested the validity of the Enforcement Acts, which were upheld by the High Court, leave to appeal being refused.

13th April.—A Committee of Experts appointed by the Commonwealth Government to make a "Preliminary Survey of the Economic Problem" issued its report, recommending the restoration of economic balance by a combination of reduced costs and a high exchange rate, the former to be secured in part by the general application by State wage-fixing authorities of the 10 per cent. "cut" in real wages. The chief measures of more immediate alleviation recommended were (i) systematic revision of the customs tariff; (ii) construction of public works when the reductions in costs of construction made it possible for such works to earn interest; (iii) advances on debentures to large-scale enterprises for which three-quarters of the needed capital had been privately subscribed; and (iv) the settlement of married recipients of sustenance as cottagers on established farms.

14th to 21st April.—*Premiers' Conference, Melbourne.*—It was decided to raise a loan of £2,400,000 for expenditure on unemployment relief works.

May.—The trade union unemployment percentage reached the peak of 30 per cent. Mr. Lang was dismissed by the Governor of New South Wales, and the Victorian Labour Government was defeated at the elections. A widespread agitation for a higher exchange rate commenced, and lasted for some months.

11th June.—The State Labour Party was defeated in the New South Wales elections, while in Queensland the Labour Party was victorious.

16th and 17th June.—The New South Wales Industrial Commission was reconstituted. The Commonwealth Court of Arbitration refused an application for restoration of the special 10 per cent. reduction in wages.

21st June.—The Commonwealth Bank Act was amended to allow part of the note reserve to be held in English sterling. Subsequently, £G10,000,528 of gold was shipped overseas from the gold reserve of the Australian Notes Fund.

May-June.—Further reductions in bank deposit rates of one-quarter and one-half of 1 per cent. on twelve and 24 months' deposits, respectively.

30th June.—*Balance of Payments.*—The balance on current account, excluding the movement of monetary gold, was estimated to be in Australia's favour by approximately £7,492,000 sterling in 1931-32, as against a debit balance in 1930-31 of approximately £17,974,000 sterling.

28th June to 8th July.—*Premiers' Conference, Canberra and Sydney.*—The Conference unanimously affirmed its adherence to the "Premiers' Plan" of 1931. The estimated deficits for 1931-32 were reported to the Conference, and, with the notable exceptions of New South Wales and Queensland, they disclosed a satisfactory conformity with the "planned" deficits. The Conference agreed to reduce the total deficits in 1932-33 to £9,000,000 (inclusive of £6.45 millions for sinking funds), and arranged for a three-year unemployment relief works plan involving the ultimate expenditure of £15,000,000. Of this amount, £7,000,000 was to be spent in 1932-33, in addition to the ordinary works programme of £6,000,000.

1st July.—The Commonwealth Bank reduced its rate for advances by a further one-half of 1 per cent., bringing the rate to 5 per cent. The average reduction by the trading banks, since 1st October, 1931, was stated to be 1 per cent. Further reductions were anticipated by prominent bankers.

21st July to 19th August.—*Imperial Economic Conference at Ottawa.*

26th August.—The New South Wales Industrial Commission reduced the basic wage for adult males from £4 2s. 6d. to £3 10s., and for adult females from £2 4s. 6d. to £1 18s.

1st September.—The Commonwealth Budget provided *inter alia* for a further reduction of pensions and salaries, decreased customs duties, the final removal of import prohibitions, exemptions from Sales Tax and primage, and suspension of the gold bounty, which had been introduced on 1st January, 1931.

September to November.—Wool prices showed some improvement; share prices advanced substantially; the value of imports and Commonwealth customs revenues increased steadily. Early in October all the 4 per cent. Commonwealth bonds reached par, after allowing for accrued interest.

4th October.—A conversion loan was issued in London at $3\frac{1}{2}$ per cent., issue price £97 $\frac{1}{2}$, maturing 1936-37, to replace £12,360,000 of $5\frac{1}{4}$ per cent. N.S.W. stock maturing in October, 1932.

14th October.—Revision of the Customs Tariff to validate the Ottawa Agreement. The margin of preference under the British Preferential Tariff was considerably widened, mainly by means of increased duties on a wide range of foreign manufactures.

24th to 29th October.—*Premiers' Conference, Melbourne.*—It was decided to place on the Australian market a loan of £8,000,000 at $3\frac{1}{4}$ per cent., maturing in 1942, for Unemployment Relief and the funding of Treasury Bills. A reduction in the rate of interest on Treasury Bills from 4 per cent. to $3\frac{1}{2}$ per cent. was announced.

1st November.—Further reductions in bank deposit rates of one-quarter of 1 per cent. for all terms, bringing the rates down to $2\frac{1}{2}$, $2\frac{3}{4}$, 3 and $3\frac{1}{2}$ per cent. on 3, 6, 12 and 24 months' deposits respectively.

5th December.—In view of the improved revenue position, the Commonwealth Government made substantial reductions in land and income (property) taxes, further exemptions from sales tax, increased the payments to certain Invalid and Old-age pensioners, and provided from revenue £2,000,000 for assistance to wheat-growers and £250,000 for assistance to other primary producers.

1933.

January.—Considerable improvement in the unemployment situation was shown in the trade union percentages for the last quarter of 1932. This improvement has continued.

20th January.—A reduction in the rate of interest on Treasury Bills from $3\frac{1}{2}$ per cent. to $3\frac{1}{4}$ per cent. was announced.

4th February.—The Loan Council agreed with the Commonwealth Bank that future requirements for loan programmes should be raised on the open market.

7th February.—Further reductions in bank deposit rates of one-quarter of 1 per cent. for all terms, bringing the rates down to 2, $2\frac{1}{2}$, $2\frac{3}{4}$ and 3 per cent. on 3, 6, 12 and 24 months' deposits respectively.

17th February.—Further reduction in the Treasury Bill rate from $3\frac{1}{4}$ per cent. to $2\frac{3}{4}$ per cent.

23rd February.—A conversion loan was issued in London at 4 per cent., issue price par, maturing 1955-70, to replace £9,621,000 of 4 per cent. stock maturing in July, 1933.

30th May.—Appointment of Commonwealth Grants Commission to inquire into matters relating to grants of financial assistance to the States.

A conversion loan was issued in London at $3\frac{1}{2}$ per cent., issue price £99, maturing in 1937-38, to replace £11,400,000 of $6\frac{1}{2}$ per cent. stock with optional rights of redemption.

31st May.—Lists closed for internal loan of £5,000,000 for State public works, issued at $3\frac{1}{4}$ per cent. at par, maturing in 1942, with subscriptions amounting to £8.4 millions.

1st June.—A further reduction in the Treasury Bill rate from $2\frac{3}{4}$ per cent. to $2\frac{1}{2}$ per cent. was announced.

8th to 14th June.—*Premiers' Conference, Melbourne.*—By arrangement with the Loan Council, the Commonwealth Bank agreed to finance revenue deficits in 1933-34 by short-term loans to the amount of £8.5 millions, subject to reduction to the extent of any relief obtained by the States from conversion of oversea loans.

30th June.—The Commonwealth Court of Arbitration ordered the restitution of the 10 per cent. reduction in real wages in the Glass Industry; subsequently extending the restitution to the Paper and Pulp, Jam and Fruit Preserving, and certain other industries.

13th July.—A conversion loan was issued in London at 4 per cent., issue price £99, maturing in 1943-48, to replace £17,221,000 of 6 per cent. stock with optional rights of redemption.

14th September.—A conversion loan was issued in London at $3\frac{3}{4}$ per cent., issue price £98, maturing in 1948-53, to replace £20,951,000 of 6 per cent. and $5\frac{3}{4}$ per cent. stock with optional rights of redemption.

4th October.—The Commonwealth Budget provided *inter alia* for substantial remissions of direct and indirect taxation, including further exemptions from Sales Tax and reduction of the rate of tax from 6 to 5 per cent., reduction of special tax on income from property from 10 to 5 per cent., reductions in the income taxation on Life Assurance and other companies, and partial restoration of Financial Emergency reductions in Invalid, Old-age and War Pensions, Public Service salaries and contributions to the Public Service Superannuation Fund. The total relief of taxation was estimated to be at the rate of £7.5 millions annually. At the same time the Government signified its intention of giving effect to that part of the report of the Tariff Board on the protective incidence of primage and exchange which applied to protected goods entitled to admission under the British Preferential Tariff.

16th November.—An internal loan of £10,000,000 was issued at $3\frac{1}{2}$ per cent., issue price £99, maturing in 1943, half for State public works and half for the purpose of retiring Treasury Bills.

30th November.—The price of wool, which had been advancing rapidly for some months, reached nearly 15d. per lb. (greasy merino, standard average). Wheat prices continued to fluctuate at very low levels. Export prices as a whole, in Australian currency, had recovered to 72 per cent. of their 1927-28 level.

4th December.—Flour Tax of £4 5s. per ton imposed to provide portion of revenue necessary to assist necessitous farmers.

5th December.—A conversion loan was issued in London at $3\frac{3}{4}$ per cent., issue price £90, maturing in 1946-49, to replace £16,647,000 of $5\frac{1}{2}$ per cent. and 5 per cent. stock with optional rights of redemption.

The Commonwealth Government provided £3,000,000 for assistance to wheat-growers to be financed partly from a temporary sales tax on flour of £4 5s. a ton, and in part from other sources. The special tax on incomes from property was raised from 5 to 6 per cent. and the customs duty on imported tobacco raised by 6d. a lb.

1934.

January.—During 1933, Unemployment statistics disclosed by Trade Union returns showed steady progressive improvement. Percentage unemployed in December quarter—23 per cent.—lowest level since August, 1930.

2nd January.—Wool realized increased prices at first of 1934 sales. The average prices realized were the highest since September, 1928.

22nd February.—Conversion in London of £21,636,550, 5½ and 5 per cent. loans. New issue 3½ per cent. at £97, maturing 1954–59.

1st April.—Treasury Bill rate reduced from 2½ per cent. to 2¼ per cent.

12th April.—Bank deposit rates further reduced to 2¼, 2½ and 2¾ per cent. for 6, 12 and 24 months respectively.

31st May.—Provisions of 1933 Flour Tax Act ceased to operate.

5th June.—Internal Loan of £12,234,000, 3¼ per cent. at £98 10s., repayable at par in fourteen years, raised for Commonwealth and State public works and funding of Treasury Bills. The terms of this flotation were the lowest ever offered for a Commonwealth loan.

19th June.—Commonwealth Bank Board agreed to finance Revenue Deficits for 1934–35 to a limit of £5,880,000, subject to the funding of an equivalent amount of Treasury Bills during the year. This amount was subject to reduction by any additional special grants from the Commonwealth over the 1933–34 basis.

25th June.—The Commonwealth Bank Board announced its withdrawal of the guarantee of payment and the undertaking that treasury bills would be rediscounted before maturity at the fixed rate in regard to new issues and re-issues after 30th June. Rediscounting will still be possible but at the rate fixed by the Commonwealth Bank at the time of the transaction.

24th July.—Commonwealth Budget for 1934–35 provided *inter alia* for further remissions in indirect taxation including additional exemptions from Sales Tax and reductions in primage, concessions in wireless licence fees and telephone charges: further restoration in part of public service salaries; more liberal war pensions, repatriation, old-age and invalid pensions, and maternity allowance benefits; assistance to primary producers in the form of a fertilizer subsidy; assistance to fruit-growers and other primary producers; and a special non-recurring grant of £2,000,000 to the States.

8th August.—Bank deposit rates for three months terms reduced from 2 per cent. to 1½ per cent.

11th October.—Further reduction in Bank deposit rates of one-quarter of 1 per cent. to 2, 2½ and 2¾ per cent. respectively for 6, 12 and 24 months' terms.

15th October.—Treasury Bill rate reduced from 2¼ to 2 per cent.

8th November.—Conversion loan of £14,601,806 issued in London at £99, maturing in 1964–74, interest at 3½ per cent.

20th November.—An internal loan of £15,000,000 raised for Public Works and funding of Treasury Bills issued at 3 per cent. at £99 15s., maturing in fourteen years.

8th December.—Commonwealth 5 per cent. stocks in New York reached par.

13th December.—Flour tax re-imposed. Rate of tax £2 12s. 6d. per ton.

17th December.—Further reduction of Bank Deposit rates—three and six months terms reduced to 1 and 1½ per cent. respectively. Treasury Bill rate on new issues and re-issues to be reduced to 1¾ per cent. from 1st January, 1935.

1935.

January.—Evidence of improved financial conditions was given in the increase in bank clearings and the decrease in unemployment during 1934. The total of bank clearings (including Treasury Bills) amounted to £2,005,000,000, and was 8.4 per cent. higher than the corresponding figure for 1933. Unemployment statistics disclosed by the Trade Union returns continued to show progressive improvement. Percentage unemployed in December quarter, 18.8 per cent., lowest level since May, 1930.

7th January.—Flour Tax commenced to operate. Rate of tax, £2 12s. 6d. per ton.

18th January.—Conversion loan of £22,384,000 issued in London at par, interest at 3½ per cent., repayable 1956–61. Largest single conversion operation.

2nd February.—Commonwealth Government announced £12,000,000 grant to States over three years for the purpose of adjusting farmers' debts by means of composition arrangements.

6th March.—The price of gold in Australian currency reached the new high level of £9 4s. 4d. per fine ounce.

13th March.—The Wheat Commission reported that production should be adjusted to find a new economic equilibrium at the existing world parity, as no permanent rise in price could logically be expected. The Commission further recommended that the wheat industry should be assisted through the application of a home consumption price, that a Commonwealth Board should be appointed to supervise oversea sales, and that a plan of debt adjustment should be undertaken over a period of seven years.

30th March.—New tariff schedule announced. Reduction in duties on apparel and stockings, farm and engineering machinery, and certain classes of motor body panels made in Great Britain.

20th May.—The Commonwealth Bank Board agreed to finance Revenue Deficits in 1935-36 to the limit of £4,730,000, subject to the funding of an equivalent amount of Treasury Bills during the year.

11th June.—Internal loan of £12,500,000, 3½ per cent. at £99 10s. repayable at par in 1949. Raised for Commonwealth and State public works and funding of Treasury Bills.

30th June.—Public Debt of Commonwealth and States (including short-term debt) totalled £1,242,115,000—Commonwealth, £394,151,000, and States, £847,964,000. Net increase in 1934-35, £19,556,000, or 1.6 per cent.

24th July.—Conversion loan of £13,470,000 issued in London at 3 per cent. at par repayable 1939-41. Annual saving in interest and exchange of £26,000 per annum.

23rd September.—Commonwealth Budget for 1935-36 provided *inter alia* for reduction from 6 per cent. to 5 per cent. of super tax on property income; extension of the list of commodities exempted from Sales Tax; some remission of primage duty and a reduction in excise on tobacco of local origin; further restoration in part of public service salaries; extension of eligibility for war pensions and repatriation benefits; some expansion of the Defence programme; a contribution to interest and sinking fund payments on Municipal loans; and the provision of a bounty on oranges exported during the 1935 season.

24th September.—Report of Commonwealth Grants Commission recommended increased special grants for 1935-36, viz.: South Australia, £1,500,000; Western Australia, £800,000; Tasmania, £450,000.

4th to 7th October.—Conference of Federal and State Ministers and Experts on the Wheat Industry. The conference approved in theory the application of a home consumption price for wheat, the scheme to be superintended by the Commonwealth.

15th November.—Commonwealth Government appointed Royal Commission to inquire into and report upon the banking and monetary systems of the Commonwealth.

26th November.—Internal loan of £7,500,000, 3½ per cent. at £99 15s., repayable at par in 1940, raised for Commonwealth and State public works and the funding of Treasury Bills. The optional privilege of tendering the Bonds at their par value for Commonwealth Probate purposes was withdrawn.

5th December.—An Act was passed to continue the operation of the Flour Tax in 1936 to contribute towards a bounty on the 1935-36 harvest.

31st December.—Trade Union unemployment percentage showed further reduction to 13.7 per cent. for fourth quarter.

1936.

7th January.—Conversion Loan in London of £21,657,000. New South Wales 5 per cent. stocks converted to 3 per cent., issued at £95 10s., maturing 1955-58.

17th January.—Internal conversion loan £2,303,000, Queensland £5 os. 9d. per cent., converted at 3½ per cent. at par.

28th February.—Commonwealth Bank announced a public issue of £1,000,000 Treasury Bills at a discount rate of $1\frac{3}{4}$ per cent. The issue was unsuccessful, only £315,000 being subscribed.

2nd March.—Bank of New South Wales increased interest rates on fixed deposits to 2 per cent. for three months, $2\frac{1}{2}$ per cent. for six months, $2\frac{3}{4}$ per cent. for twelve months, and 3 per cent. for 24 months. Bank of Adelaide made similar increases on the following day.

24th March.—Commonwealth Bank and the other Trading Banks increased rates on fixed deposits to conform to the rates offered by the Bank of New South Wales from 2nd March.

2nd June.—Internal loan of £9,000,000, $3\frac{3}{4}$ per cent., issued at £98 10s., repayable 1951-52, undersubscribed by £1,800,000.

8th June.—Conversion loan in London of £16,551,000, at $2\frac{3}{4}$ per cent., issued at £99, repayable 1941-43. The stocks converted were 3 per cent. Western Australia, $3\frac{1}{2}$ per cent. Commonwealth and South Australian, and $4\frac{1}{2}$ per cent. New South Wales and Western Australia. The loan was over subscribed.

25th June.—Import restrictions placed by the Government of Japan on imports from Australia, on the grounds that Australia had applied "unreasonable restrictive measures in respect of the importation of goods produced or manufactured in Japan".

4th August.—Excess of exports over imports for year 1935-36 was £ stg. 22,597,000.

Wheat prices rose to a new six-year peak of 5s. per bushel for city parcels in Melbourne.

10th September.—Commonwealth Budget for 1936-37 introduced, providing for taxation remissions equal to £5,275,000 in a full year (£3,868,000 for remainder of current year); increased grants on account of Federal Aid Roads; restoration of public service salaries; increases in certain classes of war pensions; increased old-age and invalid pension rates, and liberalized conditions for maternity allowances. A surplus of £45,000 was anticipated for the 1936-37.

11th September.—Commonwealth Grants Commission recommended the following grants for 1936-37: South Australia £1,330,000, Western Australia £500,000, and Tasmania £600,000. Sales Tax reduced from 5 per cent. to 4 per cent. and further exemptions granted.

18th September.—Further exemptions from primage duties promulgated.

26th September.—Remissions of sales tax, estimated at £1,000,000, on a wide range of goods.

28th September.—Price of gold rose by about 3s. to £A8 13s. 9d. per fine ounce.

7th November.—Australian Loan Council decided to grant extra £1,000,000 to Western Australia because of drought conditions in that State; loan programme for year increased by £750,000 to £22,450,000.

26th November.—Internal loan of £7,500,000, $3\frac{3}{4}$ per cent., at £97 10s., maturing on 15th November, 1951.

27th December.—Settlement of trade dispute with Japan.

1937.

3rd January.—Japan resumed buying at Sydney wool sales; prices advanced from 10 to 15 per cent.

13th January.—The percentage of unemployment amongst trade unionists declined to 10.7 in the last quarter of 1936.

28th January.—Life assurance sold during 1936 was a record for Australia.

6th April.—Wheat prices for city parcels touched 6s. a bushel in Melbourne.

27th April.—Internal loan of £7,500,000, $3\frac{3}{4}$ per cent., at £99 5s., maturing on 15th October, 1948.

10th May.—Export quota of 400,000 tons allotted to Australia under International Sugar Agreement.

9th June.—Conversion loan in London. £12,360,958 New South Wales stocks converted to $3\frac{1}{2}$ per cent., issued at £96 10s., maturing in 1950-52.

23rd June.—Commonwealth Arbitration Court increased the Federal basic wage by an average of 5s. for males and 2s. 6d. for females.

30th June.—Deposits in the trading banks reached record total of £320,540,000 in the quarter ended June, 1937. Increase for the year was £22,460,000. Savings bank deposits were also a record at £230,851,000.

3rd August.—Australia's favourable balance for 1936-37 was £stg. 35,470,000 compared with £stg. 22,376,000 in 1935-36 and £stg. 15,583,000 in 1934-35.

24th August.—Presentation of Report of the Royal Commission on Banking (see summary of recommendations on p. 1010).

Fourth Report of the Commonwealth Grants Commission recommended the following State grants: South Australia, £1,200,000; Western Australia, £575,000; Tasmania, £575,000.

27th August.—Commonwealth Budget presented. Provision of £11,531,000 for defence. Invalid and old-age pensions raised from 19s. to £1. No taxation reductions. Estimated surplus, £30,000.

19th October.—Australian Butter (salted) touched new seven-year high level of 135s. to 136s. a cwt. on London market.

23rd October.—Federal elections held.

18th November.—Conversion loan in London of £11,409,965 Commonwealth Government stocks converted to $3\frac{1}{2}$ per cent., issued at £97, and maturing in 1951-54.

30th November.—Internal loan of £8,194,760, $3\frac{1}{2}$ per cent., issued at £99 15s., repayable 1951.

16th December.—Radio licences in Australia reached 1,000,000 on 30th November. Eighty homes out of every 100 in metropolitan areas had a wireless set and 44 out of every 100 in country areas.

1938.

13th January.—Prime Minister announced that it was hoped to resume assisted British migration by the end of 1938.

20th January.—In the last quarter of 1937 unemployment among trade unionists had fallen to 8.2 per cent., the lowest point since August, 1927.

24th January.—Gold produced in Australia during 1937 was 1,381,135 fine ounces, valued at £A11,984,088, the greatest output since 1917.

14th March.—Modification of existing Trade Agreement between Australia and New Zealand.

24th March.—Australian Defence Programme involving expenditure of £43,000,000 over three years announced. This programme was subsequently expanded.

31st March.—British Empire Producers' Conference opened at Sydney.

9th April.—Substantial reductions in cable and wireless messages between Empire countries.

5th May.—Commonwealth loan in London of £stg. 7,000,000, $3\frac{1}{2}$ per cent., issued at £99, maturing in 1952-59. £2,000,000 for Defence purposes and the balance for conversion of portion of Australian Treasury Bills held by Commonwealth Bank in London.

19th May.—Internal loan of £10,418,130, $3\frac{1}{2}$ per cent., issued at £99 10s., maturing in 1952-54.

30th June.—National Insurance Bill passed by Federal Parliament.

2nd July.—New Trade Treaty between Japan and Australia signed.

5th July.—Factory employees in 1936-37 were 523,824, the highest ever recorded.

13th July.—Australia's favourable overseas trade balance for 1937-38 was £stg.11,863,000, the lowest since the depression years.

26th August.—Premiers of all States agreed upon plan for home-consumption price for wheat.

31st August.—Taxation per capita in Australia during 1937-38 was £17 6s., the highest ever recorded.

9th September.—General coal strike commenced in all States except Western Australia.

20th September.—Fifth Report of the Commonwealth Grants Commission recommended the following State grants: South Australia, £1,040,000; Western Australia, £570,000; and Tasmania, £410,000.

21st September.—Commonwealth Budget presented. Provision of £16,796,000 for Defence. Substantial increases in taxation. Estimated surplus, £26,000.

29th September.—Sales tax raised from 4 to 5 per cent.; estimated increased yield, £1,300,000. Income tax raised by 15 per cent.; estimated increased yield, £1,400,000.

21st October.—Meeting of Loan Council at Canberra. Commonwealth and State Governments discussed urgent Defence works.

9th November.—Internal conversion loan of £68,000,000 and new loan of £4,000,000; 3½ per cent., issued at par, maturing in 1952-54.

22nd November.—Savings Banks deposits attained new record total of £243,220,000 in October, 1938, an increase of £9,000,000 on total for October, 1937.

2nd December.—Flour tax of £5 15s. per ton applied under Commonwealth Government's wheat legislation. The tax was reduced to £5 7s. 6d. per ton from 16th December.

6th December.—Revised three-year Defence programme estimated to cost £63,000,000.

13th December.—Price of gold fixed by the Commonwealth Bank at record level of £9 5s. 5½d. a fine ounce.

17th December.—In announcing a subscription of £6,000,000 to the conversion and defence loan the Chairman of the Commonwealth Bank stated that the Bank considered it should make adequate funds available to minimize any possible deflationary consequences of reduced income from exports and diversion of money to defence works.

APPENDIX.

(Recent information and returns which have come to hand since the various chapters were sent to press are given hereunder.)

CHAPTER III.—GENERAL GOVERNMENT.

§ 3. Administration and Legislation, p. 73.

2. **Commonwealth Ministry.**—On 7th November, 1938, the Hon. J. A. Lyons resigned as Prime Minister of the Commonwealth and on the invitation of the Governor-General formed a new government the members of which are :—

Prime Minister	The Rt. Hon. J. A. Lyons, C.H.
Minister for Commerce ..	The Rt. Hon. Sir Earle Page, G.C.M.G.
Attorney-General and Minister for Industry.	The Rt. Hon. R. G. Menzies, K.C.
Minister for External Affairs ..	The Rt. Hon. W. M. Hughes, K.C.
Treasurer	The Hon. R. G. Casey, D.S.O., M.C.
Minister for Works and Civil Aviation.	The Hon. H. V. C. Thorby.
Minister for Trade and Customs	The Hon. J. A. Perkins.
Minister for Defence ..	The Hon. G. A. Street, M.C.
Minister for the Interior ..	The Hon. J. McEwen.
Vice-President of the Executive Council.	Senator the Hon. G. McLeay.
Minister for Health and Minister for Repatriation.	Senator the Hon. H. S. Foll.
Postmaster-General	The Hon. A. G. Cameron.
Minister without portfolio assist- ing the Treasurer.	Senator the Hon. A. N. MacDonald.
Minister without portfolio assist- ing the Minister for Commerce.	The Hon. V. C. Thompson.
Minister without portfolio assist- ing the Prime Minister and administering External Ter- ritories.	The Hon. E. J. Harrison.

CHAPTER V.—TRANSPORT AND COMMUNICATION.

A. SHIPPING.

§ 2. Oversea Shipping.

3. **Shipping Communication with various Countries, p. 110.**—The following table gives the net tonnages of overseas vessels entered and cleared from Australia ports during 1937–38 according to direction :—

OVERSEA SHIPPING, AUSTRALIA.—DIRECTION, 1937-38.

Country.	Net Tonnage Entered.	Net Tonnage Cleared.
United Kingdom and European Countries ..	2,153,833	3,031,306
New Zealand	978,305	955,618
Asiatic Countries and Islands in the Pacific	2,332,043	2,362,771
Africa	346,008	162,127
North and Central America	1,289,188	579,238
South America	29,027	1,998
Total	7,128,404	7,093,058

4. **Nationality of Oversea Shipping, p. 111.**—Particulars of the nationality of oversea shipping during 1937–38 are as follows :—

**OVERSEA SHIPPING, AUSTRALIA.—NATIONALITY OF VESSELS ENTERED,
1937-38.**

Nationality.							Net Tonnage.
British—							
Australian	..	..	..	..	..	..	363,086
United Kingdom .. .	..	..	..	..	..	..	4,021,272
Canadian .. .	..	..	..	..	..	..	30,910
New Zealand .. .	..	..	..	..	..	..	505,976
Other British .. .	..	..	..	..	..	..	236,907
Total .. .	..	..	..	..	..	..	5,158,151
Foreign—							
Danish .. .	..	..	..	..	..	..	55,753
Dutch .. .	..	..	..	..	..	..	199,913
French .. .	..	..	..	..	..	..	102,952
German .. .	..	..	..	..	..	..	180,314
Italian .. .	..	..	..	..	..	..	70,451
Japanese .. .	..	..	..	..	..	..	318,499
Norwegian .. .	..	..	..	..	..	..	482,470
Swedish .. .	..	..	..	..	..	..	116,036
United States .. .	..	..	..	..	..	..	216,083
Other .. .	..	..	..	..	..	..	227,782
Total .. .	..	..	..	..	..	..	1,970,253
Grand Total .. .	..	..	..	..	..	..	7,128,404

§ 5. Interstate Shipping.

2. **Vessels and Net Tonnage Entered, p. 116.**—(*Interstate Direct*).—Particulars of the net tonnage of vessels recorded as having entered each State from any other State during 1937–38 are as follows :—

INTERSTATE SHIPPING.—NET TONNAGE OF VESSELS ENTERED, 1937-38.

State or Territory.							Net Tonnage. (a)
New South Wales .. .							5,977,315
Victoria .. .	..	..	..	..	..	..	4,743,317
Queensland .. .	..	..	..	..	..	..	1,674,662
South Australia .. .	..	..	..	..	..	..	3,176,924
Western Australia .. .	..	..	..	..	..	..	1,978,260
Tasmania .. .	..	..	..	..	..	..	1,562,790
Northern Territory .. .	..	..	..	..	..	..	72,996
Total .. .	..	..	..	..	..	..	19,186,264

(a) Includes overseas vessels on interstate voyages.

§ 6. Tonnage of Cargo.

1. Oversea and Interstate Cargo.—(ii) *Principal Ports*, p. 119.—The following table shows the tonnage of oversea and interstate cargo discharged and shipped during 1937–38 :—

TONNAGE OF CARGO DISCHARGED AND SHIPPED, STATES, 1937-38.

State.	Discharged.			Shipped.		
	Oversea.	Interstate.	Total.	Oversea.	Interstate.	Total.
New South Wales ..	2,495,694	3,510,389	6,006,083	1,842,801	3,679,015	5,521,816
Victoria ..	2,140,612	2,684,897	4,825,509	1,522,772	1,208,866	2,731,038
Queensland ..	457,627	742,054	1,199,681	886,710	443,587	1,330,303
South Australia ..	791,659	1,140,972	1,932,631	1,500,761	2,547,958	4,057,719
Western Australia ..	666,978	402,138	1,069,116	899,272	95,662	994,934
Tasmania ..	90,485	531,432	621,917	187,799	931,372	1,119,171
Northern Territory ..	2,544	10,782	13,326	119	2,558	2,677
Total, Australia..	6,645,599	9,022,664	15,668,263	6,819,240	8,909,018	15,728,258

B. RAILWAYS.

§ 1. General.

8. Summary of Operations, 1937-38, p. 125.—A summary of the working of all Government railways open for general traffic during 1937-38 is given hereunder :—

GOVERNMENT RAILWAYS, AUSTRALIA, 1937-38.

Particulars.	Federal.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Miles Open ..	2,201	6,114	4,721	6,497	2,558	4,339	651	27,081
Revenue—								
(a) Coaching ..	£ 167	7,781	4,119	2,199	735	717	137	15,855
(a) Goods ..	£ 180	10,831	4,044	5,055	2,361	2,760	311	26,460
(a) Miscellaneous ..	£ 87	(d) 874	672	(e)	203	102	17	2,045
(a) Total Revenue ..	£ 443	(f) 14,486	9,735	7,254	3,200	3,078	405	44,360
(a) Expenditure ..	£ 511	13,700	7,830	5,754	2,878	2,710	(g) 587	44,030
(a) Train Miles Run ..	238	30,203	17,017	13,543	6,111	(h) 6,835	(i) 1,481	76,548
Earnings per train mile ..	118. 8d.	128. 11d.	108. 10d.	108. 10d.	118. 3d.	118. 3d.	118. 7d.	118. 7d.
Expenditure per train mile ..	138. 0d.	98. 1d.	88. 9d.	88. 0d.	98. 5d.	88. 4d.	78. 11d.	88. 11d.
Expenditure per cent. on Earnings ..	115. 48	70. 61	80. 43	79. 32	87. 23	73. 68	126. 36	76. 72
(a) Passenger Journeys ..	100	189,349	137,894	25,602	17,632	12,011	2,207	384,855
(a) Coal, Coke and Shale carried ..	8	8,023	248	732	135	307	496	9,949
(a) Other Minerals ..	1	1,863	(j)	587	611	(k) 278	(l)	3,340
(a) Live Stock ..	38	890	756	479	173	114	28	2,478
(a) Other Goods ..	88	5,205	6,284	3,202	1,078	2,303	333	19,020
(a) Total Freight ..	132	10,181	7,258	5,000	2,807	3,062	857	35,687

(a) 000 omitted. (b) Exclusive of Uniform Gauge Railway. (c) Including Road Motors.
 (d) From sale of electrical energy only, other miscellaneous included with Coaching. (e) Included with Coaching. (f) Excluding Governmental contributions towards losses on non-paying development lines. (g) Excluding depreciation. (h) Including Assistant and Light Miles.
 (i) Including Assistant and Light Miles, but excluding Rail Motor Miles. (j) Included with Other Goods. (k) Miscellaneous—includes Ores and Minerals. (l) Included with Coal, Coke and Shale.

[NOTE.—The figures in the above table, taken from quarterly statements, are preliminary only, and do not entirely agree with the final particulars in the Annual Railways Reports of the several States.]

D. AVIATION.

14. Statistical Summary, p. 170.—The subjoined table gives a summary of operations in 1937-38 :—

CIVIL AVIATION, 1937-38.

Registered Aircraft Owners. (a)	Registered Aircraft. (a)	Licensed Pilots. (a)		Flights Carried Out.	Hours Flown.	Approx. Mileage.	Passengers Carried.	Weight of Goods Carried.	Weight of Mails Carried.
		Private.	Commercial.						
No.	No.	No.	No.	No.	No.	Miles.	No.	lb.	lb.
AUSTRALIA.									
139	286	933	323	159,534	113,647	12,291,570	158,903	1,169,207	228,581
NEW GUINEA.									
10	40	12	24	13,697	15,445	1,560,179	13,264	25,574,028	166,643

(a) At 30th June, 1938.

E. MOTOR VEHICLES.

5. Motor Vehicles Registered, p. 173.—Motor vehicles registered at 30th June, 1938, were as follows :—

MOTOR VEHICLES REGISTERED AT 30th JUNE, 1938.

State or Territory.	Motor Cars.	Commercial Vehicles.	Motor Cycles.	All Vehicles.	
				No.	Per 1,000 of Population.
New South Wales	205,802	73,509	24,932	303,403	111.6
Victoria	145,179	77,943	27,333	250,455	134.1
Queensland	72,225	38,737	7,846	118,808	118.4
South Australia	56,882	23,206	10,048	90,136	152.2
Western Australia	36,386	22,596	7,079	66,061	143.6
Tasmania	16,648	4,511	3,646	24,805	105.9
Northern Territory	354	835	44	1,233	213.7
Australian Capital Territory	1,187	354	86	1,627	166.7
Australia	534,963	241,751	80,114	856,828	124.3

6. New Vehicles Registered, p. 174.—New vehicles registered in the various States during the year, 1937-38 were as follows :—

REGISTRATIONS OF NEW VEHICLES DURING THE YEAR ENDED JUNE, 1938.

Vehicles.	N.S.W.	Vic.	Q'land.	S.A.(a)	W.A.(b)	Tas.	A.C.T.	Total.
Motor Cars	23,633	14,954	6,765	5,507	2,273	1,802	191	55,125
Commercial Vehicles, etc.	10,358	8,604	4,443	2,575	663	707	52	27,402
Motor Cycles	2,748	2,946	999	906	416	287	21	8,323
Total	36,739	26,504	12,207	8,988	3,352	2,796	264	90,850

(a) Exclusive of Northern Territory.

(b) Metropolitan Area only.

F. POSTS, TELEGRAPHS AND TELEPHONES.

§ 6. Radio Telegraphy and Telephony.

2. Wireless Licences, 1937-38, p. 197.—The following table shows the number of each class of licence issued in each State, etc., during 1937-38 :—

WIRELESS LICENCES IN FORCE AT 30th JUNE, 1938.

Station Licence.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia.	Papua and New Guinea.	Grand Total.
Coast ..	2 *	1	6	1	5	3	1	..	19	9	28
Ship ..	89	95	13	11	5	1	1	..	215	3	218
Aircraft ..	10	14	7	5	2	..	1	..	39	2	41
Land (a) ..	8	3	43	20	64	8	35	..	181	53	234
Broadcasting(b)	32	18	18	8	8	8	..	1	93	1	94
Broadcast Listeners ..	402,315	315,406	117,487	111,622	71,324	36,013	165	1,663	1,055,995	9	1,056,004
Experimental	724	539	251	179	131	59	..	8	1,891	16	1,907
Portable (c) ..	15	5	5	4	4	1	5	..	39	33	72
Special ..	39	24	16	..	6	..	..	..	85	..	85
Total ..	403,234	316,105	117,846	111,850	71,549	36,093	208	1,672	1,058,557	126	1,058,683

(a) In addition to the licensed stations there are two operated by the Postmaster-General's Department, viz., Camooweal (Q.) and Wave Hill (N.T.), and fourteen low powered stations established by the Administration of the Territory of New Guinea. (b) There are also 21 stations operated by the National Broadcasting Service, including a short-wave station (V.L.R. Lambhurst, Vic.). (c) In addition to the licensed portable stations there is one portable station established by the Administration of the Territory of New Guinea and one portable station established by the Administration of the Territory of Papua.

CHAPTER XIII.—POPULATION.

§ 4. Distribution and Fluctuation of Population.

2. Growth and Distribution, p. 315. The population of Australia at 30th June, 1938, was estimated at 6,893,082 persons distributed amongst the States and Territories as follows :—

ESTIMATED POPULATION AT 30th JUNE, 1938.

State or Territory.	Males.	Females.	Total.
New South Wales	1,371,759	1,347,142	2,718,901
Victoria	922,515	944,532	1,867,047
Queensland	525,117	478,055	1,003,172
South Australia	290,156	296,136	592,292
Western Australia	242,651	217,510	460,161
Tasmania	119,013	115,165	234,178
Northern Territory	3,908	1,861	5,769
Australian Capital Territory ..	6,286	5,276	11,562
Total	3,487,405	3,405,677	6,893,082

CHAPTER XVII.

LABOUR, WAGES AND PRICES.

A.—RETAIL PRICES AND PRICE INDEXES, P. 542.

Retail Price Index-Numbers—Food, Groceries and Housing (all Houses) 1911 Base. —The index numbers in the following table were computed for the Commonwealth Court of Conciliation and Arbitration on a different basis to those given in § 3 and § 4. The rent constituent is based upon the weighted average of *all houses*. The index-numbers are directly comparable with those published in Labour Reports, No. 15, and in Quarterly Summaries of Australian Statistics previous to No. 99. The compilation of this index was discontinued after the issue for June Quarter, 1938.

RETAIL PRICE INDEX-NUMBERS—FOOD, GROCERIES AND HOUSING—ALL HOUSES.

Weighted Average—Six Capitals in 1911 = 1,000.

Town.	1933.				1934.				1935.				1936.				1937.				1938.			
	Septem-ber	Decem-ber	March	June	Septem-ber	Decem-ber	March	June	Septem-ber	Decem-ber	March	June	Septem-ber	Decem-ber	March	June	Septem-ber	Decem-ber	March	June	Septem-ber	Decem-ber	March	June
NEW SOUTH WALES.																								
Sydney ..	1,445	1,434	1,450	1,405	1,470	1,482	1,490	1,460	1,460	1,508	1,512	1,507	1,503	1,517	1,512	1,510	1,512	1,509	1,528	1,508	1,508	1,528	1,508	1,508
Newcastle ..	1,343	1,344	1,355	1,370	1,370	1,381	1,394	1,394	1,413	1,435	1,458	1,494	1,433	1,443	1,443	1,442	1,443	1,443	1,493	1,488	1,500	1,537	1,500	1,537
Broken Hill ..	1,285	1,295	1,311	1,312	1,350	1,361	1,361	1,362	1,387	1,404	1,453	1,455	1,459	1,487	1,483	1,482	1,487	1,491	1,492	1,518	1,505	1,518	1,505	1,518
Goulburn ..	1,300	1,300	1,307	1,314	1,320	1,325	1,332	1,332	1,343	1,343	1,343	1,347	1,353	1,353	1,353	1,353	1,353	1,353	1,353	1,353	1,353	1,353	1,353	1,353
Bathurst ..	1,289	1,282	1,299	1,300	1,283	1,292	1,292	1,292	1,317	1,334	1,338	1,339	1,338	1,357	1,357	1,357	1,357	1,357	1,357	1,357	1,357	1,357	1,357	1,357
Weighted Average ..	1,423	1,424	1,442	1,451	1,460	1,471	1,460	1,461	1,461	1,498	1,503	1,497	1,493	1,507	1,512	1,510	1,513	1,510	1,508	1,520	1,500	1,520	1,500	1,520
VICTORIA.																								
Melbourne ..	1,382	1,343	1,355	1,294	1,375	1,392	1,403	1,413	1,413	1,431	1,435	1,435	1,433	1,448	1,443	1,443	1,448	1,448	1,448	1,448	1,448	1,448	1,448	1,448
Ballarat ..	1,201	1,202	1,205	1,213	1,220	1,220	1,220	1,220	1,220	1,220	1,220	1,220	1,220	1,220	1,220	1,220	1,220	1,220	1,220	1,220	1,220	1,220	1,220	1,220
Bendigo ..	1,225	1,225	1,225	1,232	1,232	1,232	1,232	1,232	1,232	1,232	1,232	1,232	1,232	1,232	1,232	1,232	1,232	1,232	1,232	1,232	1,232	1,232	1,232	1,232
Geelong ..	1,342	1,342	1,342	1,342	1,342	1,342	1,342	1,342	1,342	1,342	1,342	1,342	1,342	1,342	1,342	1,342	1,342	1,342	1,342	1,342	1,342	1,342	1,342	1,342
Warrambool ..	1,371	1,369	1,371	1,411	1,405	1,420	1,420	1,420	1,430	1,430	1,433	1,429	1,431	1,441	1,441	1,441	1,441	1,441	1,441	1,441	1,441	1,441	1,441	1,441
Weighted Average ..	1,307	1,331	1,351	1,362	1,370	1,387	1,400	1,400	1,400	1,427	1,431	1,429	1,416	1,461	1,467	1,461	1,461	1,461	1,461	1,461	1,461	1,461	1,461	1,461
QUEENSLAND.																								
Frisbane ..	1,244	1,228	1,245	1,250	1,284	1,290	1,283	1,288	1,326	1,336	1,336	1,336	1,327	1,337	1,337	1,337	1,337	1,337	1,337	1,337	1,337	1,337	1,337	1,337
Toowoomba ..	1,199	1,204	1,204	1,226	1,222	1,250	1,250	1,250	1,261	1,278	1,306	1,306	1,325	1,337	1,337	1,337	1,337	1,337	1,337	1,337	1,337	1,337	1,337	1,337
Rockhampton ..	1,207	1,210	1,214	1,213	1,228	1,235	1,253	1,251	1,270	1,270	1,270	1,270	1,270	1,270	1,270	1,270	1,270	1,270	1,270	1,270	1,270	1,270	1,270	1,270
Townsville (a) ..	1,428	1,430	1,448	1,453	1,456	1,456	1,456	1,456	1,456	1,456	1,456	1,456	1,456	1,456	1,456	1,456	1,456	1,456	1,456	1,456	1,456	1,456	1,456	1,456
Bundaberg (a) ..	1,381	1,387	1,389	1,369	1,225	1,225	1,232	1,232	1,232	1,232	1,232	1,232	1,232	1,232	1,232	1,232	1,232	1,232	1,232	1,232	1,232	1,232	1,232	1,232
Weighted Average ..	1,269	1,271	1,271	1,280	1,285	1,277	1,277	1,277	1,277	1,277	1,277	1,277	1,277	1,277	1,277	1,277	1,277	1,277	1,277	1,277	1,277	1,277	1,277	1,277
Queensland ..																								

(a) For periods prior to 1937, Charters Towers and Warwick respectively.

RETAIL PRICE INDEX-NUMBERS—FOOD, GROCERIES AND HOUSING—ALL HOUSES—continued.

Weighted Average—Six Capitals in 1911 = 1,000.

Town.	1933.				1934.				1935.				1936.				1937.				1938.	
	Septem-ber	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
SOUTH AUSTRALIA.																						
Adelaide ..	1,249	1,245	1,268	1,297	1,358	1,275	1,283	1,297	1,306	1,306	1,308	1,302	1,339	1,363	1,358	1,370	1,388	1,413	1,417	1,428	1,454	1,454
Kadina, etc.	1,094	1,105	1,130	1,157	1,132	1,145	1,150	1,154	1,167	1,166	1,166	1,153	1,169	1,193	1,201	1,211	1,214	1,212	1,201	1,203	1,222	1,222
Port Pirie ..	1,170	1,172	1,200	1,241	1,132	1,250	1,239	1,249	1,250	1,243	1,243	1,251	1,291	1,323	1,330	1,335	1,351	1,300	1,362	1,374	1,393	1,393
Mount Gambier ..	1,154	1,154	1,157	1,170	1,153	1,170	1,195	1,194	1,206	1,234	1,234	1,217	1,236	1,260	1,256	1,273	1,280	1,297	1,304	1,309	1,313	1,313
Peterborough ..	1,267	1,270	1,287	1,305	1,278	1,293	1,301	1,297	1,307	1,307	1,307	1,297	1,330	1,395	1,357	1,358	1,366	1,379	1,389	1,393	1,405	1,405
Weighted Average—South Australia	1,239	1,235	1,258	1,289	1,251	1,268	1,276	1,289	1,298	1,300	1,300	1,294	1,330	1,351	1,350	1,362	1,380	1,403	1,406	1,416	1,442	1,442
WESTERN AUSTRALIA.																						
Perth, etc.	1,273	1,268	1,299	1,346	1,331	1,326	1,333	1,346	1,344	1,349	1,349	1,341	1,389	1,408	1,394	1,411	1,433	1,431	1,417	1,434	1,463	1,463
Kalgoorlie, etc.	1,437	1,436	1,459	1,535	1,536	1,538	1,552	1,594	1,572	1,580	1,573	1,605	1,670	1,670	1,662	1,668	1,681	1,679	1,676	1,676	1,730	1,730
Norham ..	1,263	1,268	1,300	1,345	1,330	1,319	1,315	1,338	1,337	1,328	1,326	1,326	1,378	1,415	1,405	1,419	1,454	1,449	1,436	1,445	1,468	1,468
Bunbury ..	1,232	1,223	1,255	1,299	1,281	1,276	1,290	1,308	1,302	1,299	1,302	1,302	1,312	1,322	1,309	1,388	1,400	1,440	1,401	1,399	1,430	1,430
Geraldton ..	1,278	1,277	1,282	1,344	1,350	1,351	1,359	1,373	1,373	1,380	1,379	1,379	1,430	1,479	1,520	1,510	1,510	1,515	1,475	1,459	1,489	1,489
Weighted Average—Western Australia	1,289	1,281	1,314	1,359	1,345	1,340	1,348	1,361	1,360	1,357	1,358	1,364	1,404	1,428	1,446	1,434	1,470	1,451	1,436	1,451	1,482	1,482
TASMANIA.																						
Hobart ..	1,411	1,395	1,375	1,417	1,430	1,450	1,424	1,480	1,480	1,480	1,480	1,435	1,440	1,493	1,500	1,515	1,515	1,511	1,513	1,536	1,537	1,537
Launceston ..	1,332	1,317	1,311	1,357	1,354	1,371	1,371	1,377	1,369	1,369	1,375	1,373	1,384	1,400	1,400	1,415	1,445	1,400	1,423	1,474	1,489	1,489
Burnie ..	1,255	1,242	1,229	1,294	1,299	1,319	1,319	1,328	1,334	1,334	1,344	1,326	1,344	1,368	1,420	1,410	1,410	1,413	1,443	1,445	1,452	1,452
Devonport ..	1,295	1,298	1,262	1,332	1,345	1,365	1,339	1,352	1,353	1,366	1,366	1,386	1,447	1,471	1,440	1,437	1,482	1,404	1,440	1,473	1,477	1,477
Queenstown ..	1,303	1,300	1,303	1,337	1,341	1,344	1,353	1,353	1,357	1,347	1,347	1,350	1,336	1,341	1,378	1,381	1,403	1,401	1,397	1,413	1,454	1,454
Weighted Average—Tasmania	1,374	1,359	1,345	1,388	1,395	1,413	1,398	1,404	1,401	1,405	1,405	1,405	1,407	1,481	1,481	1,480	1,487	1,493	1,509	1,507	1,513	1,513
Weighted Average—Thirty Towns ..	1,345	1,344	1,355	1,380	1,386	1,392	1,395	1,401	1,425	1,430	1,430	1,427	1,446	1,466	1,482	1,485	1,487	1,503	1,515	1,521	1,514	1,514
Weighted Average—Six Capital Cities	1,355	1,354	1,365	1,387	1,387	1,400	1,401	1,407	1,433	1,437	1,437	1,434	1,445	1,475	1,499	1,493	1,496	1,513	1,524	1,530	1,554	1,554

Retail Price Index-Numbers—Capital Cities—Annual Figures—1901 to 1937.—The index-numbers given in the separate parts of the table cannot be compared with each other in order to show the relative cost of housing and of food and groceries, since the weighted average cost for the six capital cities taken together in 1911 in each group or combination is made equal to 1,000. The compilation of these index-numbers was discontinued after the issue for June Quarter, 1938.

Weighted Average—Six Capitals in 1911 = 1,000.

FOOD AND GROCERIES ONLY.

City.	1901.	1907.	1911.	1914.	1922.	1923.	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.
Sydney ..	917	936	980	1,156	1,703	1,830	1,732	1,785	1,867	1,846	1,826	1,948	1,759	1,567	1,524	1,430	1,475	1,502	1,517	1,553
Melbourne ..	905	925	935	1,091	1,641	1,802	1,684	1,748	1,774	1,732	1,684	1,795	1,632	1,414	1,355	1,273	1,337	1,402	1,446	1,494
Brisbane ..	905	947	1,018	1,078	1,608	1,603	1,090	1,734	1,768	1,680	1,671	1,701	1,508	1,302	1,320	1,250	1,300	1,364	1,414	1,480
Adelaide ..	908	951	1,020	1,215	1,723	1,823	1,791	1,840	1,869	1,841	1,775	1,887	1,674	1,411	1,361	1,308	1,370	1,304	1,447	1,476
Perth ..	1,164	1,497	1,346	1,302	1,776	1,828	1,891	1,938	1,866	1,796	1,882	1,938	1,719	1,494	1,438	1,352	1,442	1,467	1,526	1,574
Hobart ..	1,011	1,010	1,058	1,212	1,794	1,863	1,849	1,810	1,868	1,788	1,737	1,833	1,702	1,459	1,425	1,354	1,405	1,415	1,479	1,555
Weighted Average— Six Capitals ..	972	955	1,000	1,144	1,684	1,805	1,732	1,785	1,839	1,789	1,701	1,806	1,682	1,477	1,425	1,342	1,400	1,442	1,475	1,521

HOUSING—ALL HOUSES.

City.	1901.	1907.	1911.	1914.	1922.	1923.	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.
Sydney ..	858	911	1,000	1,279	1,535	1,617	1,687	1,720	1,813	1,808	1,857	1,870	1,839	1,637	1,486	1,457	1,600	1,472	1,519	1,564
Melbourne ..	733	804	970	1,126	1,597	1,672	1,729	1,742	1,839	1,850	1,835	1,836	1,720	1,497	1,412	1,304	1,411	1,318	1,510	1,544
Brisbane ..	488	575	767	882	1,206	1,247	1,242	1,281	1,459	1,480	1,487	1,505	1,344	1,204	1,171	1,170	1,100	1,227	1,307	1,397
Adelaide ..	539	612	717	840	1,300	1,450	1,551	1,595	1,553	1,601	1,605	1,607	1,477	1,240	1,131	1,137	1,140	1,101	1,217	1,281
Perth ..	861	681	810	914	1,092	1,124	1,134	1,154	1,316	1,316	1,382	1,305	1,407	1,304	1,177	1,166	1,159	1,160	1,178	1,221
Hobart ..	667	708	805	914	1,445	1,602	1,665	1,634	1,650	1,603	1,595	1,580	1,568	1,492	1,455	1,447	1,440	1,449	1,492	1,477
Weighted Average— Six Capitals ..	751	816	1,000	1,135	1,480	1,551	1,609	1,632	1,725	1,734	1,758	1,760	1,685	1,483	1,374	1,356	1,365	1,388	1,441	1,486

FOOD, GROCERIES AND HOUSING—ALL HOUSES—COMBINED.

City.	1901.	1907.	1911.	1914.	1922.	1923.	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.
Sydney ..	893	926	1,031	1,206	1,634	1,737	1,714	1,762	1,844	1,830	1,839	1,916	1,792	1,596	1,508	1,439	1,468	1,490	1,517	1,557
Melbourne ..	870	875	950	1,105	1,625	1,749	1,703	1,745	1,801	1,781	1,746	1,812	1,672	1,448	1,378	1,310	1,367	1,420	1,472	1,515
Brisbane ..	709	794	915	997	1,442	1,510	1,506	1,535	1,653	1,598	1,595	1,620	1,441	1,315	1,258	1,214	1,254	1,308	1,370	1,434
Adelaide ..	864	894	1,038	1,143	1,747	1,670	1,739	1,742	1,730	1,772	1,730	1,772	1,593	1,341	1,266	1,235	1,275	1,299	1,341	1,397
Perth ..	1,027	986	1,126	1,143	1,495	1,538	1,580	1,616	1,640	1,605	1,677	1,715	1,591	1,416	1,320	1,271	1,326	1,341	1,383	1,429
Hobart ..	869	886	954	1,090	1,651	1,756	1,773	1,738	1,778	1,712	1,661	1,729	1,647	1,472	1,437	1,389	1,418	1,449	1,472	1,523
Weighted Average— Six Capitals ..	880	897	1,000	1,140	1,600	1,700	1,682	1,722	1,786	1,766	1,760	1,822	1,683	1,479	1,403	1,345	1,385	1,420	1,461	1,507

D.—EMPLOYMENT.

§ 2. Fluctuations in Employment.

2. Unemployment, p. 588.—The following are the percentages of unemployment in each State for the four quarters of 1938 :—

UNEMPLOYMENT.—PERCENTAGES.

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
1938—							
March Quarter ..	9.6	7.3	6.6	6.9	4.8	8.8	8.0
June ..	9.8	8.5	7.2	7.5	5.3	10.4	8.6
September ..	10.0	9.7	6.3	10.0	6.1	12.1	9.2
December ..	10.1	9.0	5.7	8.8	6.5	13.7	8.9

CHAPTER XVIII.

MINERAL INDUSTRY.

§ 1. The Mineral Wealth of Australia.

3. Value of Production, p. 606.—The following table gives the value of Australian mineral production for the year 1937 :—

MINERAL PRODUCTION.—VALUE, 1937 (c).

Mineral.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Ter.	Total.
	£	£	£	£	£	£	£	£
Coal ..	5,823,469	171,369	934,107	..	340,444	66,883	..	7,336,272
Coal—Brown ..	..	325,950	..	..	..	..	..	325,950
Copper ..	72,406	..	308,968	21,620	986	759,332	101	1,103,413
Gold ..	595,855	1,266,507	1,104,760	60,372	8,688,921	176,130	91,543	11,984,088
Ironstone ..	(a) 374	..	2,858	2,146,376	..	36	..	2,149,644
Lead ..	..	887,939	..	7,248	..	212,492	..	(b) 1,107,679
Silver ..	(a) 3,997	491	284,592	86	20,596	95,770	..	(b) 405,532
Silver-lead Ores, Concentrates, etc.	4,306,616	..	..	285	..	..	..	4,306,901
Tin and Tin Ores	336,628	44,127	202,614	..	12,421	260,673	7,696	864,159
Zinc and Concentrates ..	657,967	..	606,150	..	..	525,824	..	1,789,941
Other Minerals ..	190,776	23,575	60,504	274,056	100,756	185,225	28,509	863,401
Total ..	11,988,088	1,832,019	4,392,492	2,502,795	9,171,372	2,282,365	127,849	32,296,980

(a) The bulk of the silver and lead is contained in the concentrates, etc., dispatched from the Broken Hill field and treated outside this State. (b) Incomplete see Note (a). (c) Preliminary figures, subject to revision.

CHAPTER XXVI.

PRIVATE FINANCE.

B. BANKING.

The Royal Commission appointed to inquire into the monetary and banking systems in Australia presented its report in August, 1937, and a summary of its recommendations is reprinted below :—

SUMMARY OF RECOMMENDATIONS.

COMMONWEALTH BANK.

(a) Directorate.

"1. The Governor should be Chairman of the Board by virtue of his office* and should possess qualifications and receive a salary commensurate with the importance of the office. The appointment of the Governor should not be made on the basis of seniority nor is it even essential that he should already be in the service of the Bank.

* Majority decision.

" 2. The six Directors other than the Governor and the Secretary to the Treasury should be appointed for a term of six years instead of seven as at present, one should retire each year, and be eligible for re-appointment, but provision should be made that no director shall continue to hold office after reaching the age of 70.

" 3. The limitation on the field of choice of directors in Section 11 (2) (b) of the Act should be removed. The members of the Board should be selected for capacity and diversity of experience and contact, and not as representatives of special interests.

" 4. The " Commonwealth Bank Act 1911-1932," Section 12B, which provides that there " shall be " a Board of Advice in London, should be made permissive. This Board is not at present constituted, and there seems to be no necessity for such a Board in present circumstances.

(b) *Savings Bank.*

" 5. The provision in the Commonwealth Bank Act, Section 35E, for the separate control of the Commonwealth Savings Bank, should be repealed.

" 6. Power should be given to the Commonwealth Savings Bank to make deposits with trading banks if the Board so chooses.

(c) *Note Issue Reserve.*

" 7. The statutory provisions which require the Commonwealth Bank to hold gold or sterling in proportion to the amount of Australian notes on issue should be repealed.

" 8. The note issue should be limited by law to a fixed maximum (for example, £60m.) subject to the right of the bank to exceed the maximum by a stated amount (for example from.) with the consent of the Treasurer.*

(d) *Deposits by Trading Banks with Commonwealth Bank.*

" 9. The Commonwealth Parliament should legislate to provide that the Commonwealth Bank Board, with the consent of the Treasurer, may require every trading bank to keep with the Commonwealth Bank a deposit of an amount not less than a percentage, specified in the requisition, of the liability of that bank to its depositors in Australia.*

" 10. Each trading bank should be required to keep on deposit the same percentage. The Board should have power at its discretion to vary the percentage from time to time within the limit fixed by the consent of the Treasurer.

" 11. The authority to requisition should not remain in force for more than six months after the consent of the Treasurer has been given, but the Treasurer should have power to consent to its extension for a further period not exceeding twelve months. In any period of two years the power should not be exercised for a longer period or periods than eighteen months.

LONDON FUNDS OF THE AUSTRALIAN BANKING SYSTEM.

(a) *Commonwealth Bank's Requirements.*

" 12. A new Exchange Mobilization Agreement on the lines suggested, binding for a period of years, should be entered into between the Commonwealth Bank and the trading banks.*

(b) *Publication of Amount of these Funds.*

" 13. The aggregate figures of the London funds of the banking system should be published regularly.

" 14. The figures should not be published until at least six months after the date to which they relate.*

TREASURY-BILLS.

" 15. The Governments and the Commonwealth Bank should explore the possibility of establishing an open market for treasury-bills by way of regular offers of bills for public tender.*

* Majority decision.

RELATIONS BETWEEN GOVERNMENTS AND THE COMMONWEALTH BANK.

" There should be some permanent machinery for the Loan Council which would enable the Loan Council, Commonwealth and State Treasuries, and the Commonwealth Bank to establish and maintain close contact with one another.

PREVENTION OF BANK FAILURES.

" 16. In the public interest the Commonwealth Bank should take control of the affairs of any bank which is unable to meet its immediate obligations, and should be given any additional powers which it may require for this purpose.

STATISTICS.

" 17. The Commonwealth Bank should be given statutory power, similar to that of the Commonwealth Statistician, to obtain statistics which it requires for its purposes as a central bank, and it should take steps to obtain such statistics.

" 18. The Commonwealth Bank should publish a monthly bulletin containing such statistics as the Board thinks fit, together with explanatory comment, and other information and advice which may be of value to the public.

DISTRIBUTION OF CREDIT.

" 19. In order to promote a wise distribution of credit the Commonwealth Bank should equip itself with all possible facilities for ascertaining economic trends in Australia and abroad, so that it can advise trading banks as to the directions in which it is desirable in the national interest that advances should be made.

TRADING BANKS.

(a) *Accounts.*

" 20. In addition to any accounts required by the law of the country or State in which it is incorporated, every bank should supply, to a prescribed authority, accounts relating to—

- (a) Its liabilities in Australia and its liabilities elsewhere than in Australia incurred in respect of its Australian business.
- (b) Its assets in Australia and its assets out of Australia in respect of its Australian business.
- (c) Its liabilities elsewhere than in Australia and its assets elsewhere than in Australia, in either case not being in respect of its Australian business either in detail or in an aggregate amount.
- (d) Its capital, reserves, and undistributed profits, and
- (e) A profit and loss account.

" 21. Such accounts should be in a form to be prescribed, by legislation or regulation made in accordance therewith, and should in the case of the balance-sheet be made up as at the date prescribed and in the case of the profit and loss account cover the period prescribed, and insofar as the particulars relate to its Australian business shall be expressed in Australian currency. Where an item is not expressed in Australian currency, the nature of the currency used should be indicated.

These accounts should be published in the *Commonwealth Gazette*.

(b) *Disclosure of Profits.*

" 22. (a) Before arriving at the profits of any accounting period, the directors should be entitled to make reasonable provision for debts which are doubtful, and interest which may not be received, without disclosure except in the circumstances referred to in (f), provided that such provision does not exceed the amount required to cover the anticipated losses under these headings.

(b) If the directors desire to make any additional provision for either of these purposes, or for other contingencies, such additional provision should be made out of disclosed profits, as is the present practice of one of the trading banks.

(c) Provision for the depreciation of premises or to write down the value of premises or for depreciation of investments should be made out of disclosed profits.

(d) Transfers from inner reserves to the credit of the profit and loss account during the accounting period should be disclosed.

(e) The existence of inner reserves should be indicated in a similar manner in the accounts of all the banks.

(f) (NOTE.—These recommendations are subject to our further recommendation, included in "Banking legislation", that the Treasurer be given power to direct the Auditor-General to investigate the affairs of any bank).

(c) *Regulation of Profits.*

"If trading banks' profits are found to exceed what may be regarded as a fair return for services rendered, the Government should consider whether these profits should be regulated or limited.*

(d) *Statistics.*

"23. The Commonwealth Statistician should obtain from the trading banks, and publish, statistics covering at least—

- (a) monthly averages of assets and liabilities within Australia, analysed in more detail than the existing quarterly averages, e.g., showing separately treasury-bills, deposits with Commonwealth Bank, and advances;
- (b) monthly totals of debits to customers' accounts within Australia;
- (c) monthly figures of assets and liabilities outside Australia, in respect of Australian business (subject to our recommendation relating to the publication of London funds);
- an annual analysis of total advances within Australia, classified according to industries.

BANKING LEGISLATION.

"24. The enactment by the Commonwealth Parliament of banking legislation upon the following lines:—

- (a) Prohibit any person, firm, or company, from carrying on the business of a bank without licence or authority from the Treasurer of the Commonwealth. For this purpose, include any cheque-paying bank or savings bank and any branch established in Australia by any bank founded elsewhere; but exclude any State bank which does not extend beyond the limits of the State concerned.
- (b) In the case of any institution carrying on the business, when the Act comes into force, provide for the authority being given, in the first instance, as a matter of right.
- (c) Give discretion to grant or refuse any application to establish a new business but prescribe conditions (a) as to capital, in the case of a company wherever formed, and (b) as to registration of an attorney, and of the constitution, in the case of any company formed outside Australia.
- (d) Define "trading bank" and "savings bank" by reference to schedules of the existing institutions, but provide for additions thereto by proclamation.
- (e) Prohibit the use of title "bank" except by—
 - (i) State banks and trading or savings banks authorized under the Act;
 - or
 - (ii) other banks with the consent of the Treasurer.
- (f) Provide, in the case of trading banks, for—
 - (i) Minimum deposits in the circumstances and in the manner recommended.*
 - (ii) Publication of annual accounts and balance-sheets in the form prescribed by the Act or by Regulations.

* Majority decision.

- (iii) A statutory declaration in the form prescribed.
- (iv) Power to the Treasurer to direct the Auditor-General to investigate the affairs of any bank and to report upon such matters as the Treasurer directs.
- (g) Give the Treasurer power to withdraw the licence or authority in the event of wilful or persistent failure to comply with the provisions set out under (f).

BANK CHARGES.

"A comprehensive and systematic revision of charges by banks for the collection of cheques and on drafts within the Commonwealth is considered necessary.

CLEARING POOL.

"If continuance of the guarantee provided by each bank by way of a deposit of notes, against default in settlement of clearing balances, is considered necessary, it is thought better that the guarantee should take the form of deposits with the Commonwealth Bank, which would allow of a reduction in the note issue.

NATIONALIZATION OF BANKING.

"The most desirable banking system in the present circumstances of Australia is one which includes privately-owned trading banks. The system contemplated is one in which—

- I. A strong central bank regulates the volume of credit and pays some attention to its distribution.
- II. The distribution of credit is left to privately-owned trading banks, working for profit, but regulated in the manner already indicated.*

SAVINGS BANKS.

"25. The savings banks should consider the desirability of lowering the maximum amounts on which interest is paid for deposits at call or very short notice, and of encouraging the conversion of any excess over this maximum into fixed deposits with themselves.

THE SAVINGS BANK OF SOUTH AUSTRALIA.

"26. The Government of South Australia should consider the question of an amendment of the State law for the purpose of—

- (a) giving the trustees of the Savings Bank of South Australia a wider discretion over the allocation of the profits, and
- (b) authorizing them to declare a current rate of interest.

MORTGAGE BANKING.

"27. A mortgage bank or mortgage banks should be established to provide facilities for fixed and long-term lending.

CAPITAL FOR SMALL SECONDARY INDUSTRIES.

"28. The Governments, with the assistance of the Commonwealth Bank, should investigate the problem of setting up institutions to supply the needs of small concerns in secondary industries.

DECIMAL COINAGE.

"29. A system of decimal coinage should be introduced based upon the division of the Australian pound into one thousand parts.

MINTS.

"30. The Commonwealth should take over from the States of Victoria and Western Australia their interests in the Mints."

* Majority decision.

GENERAL INDEX.*

Note.—This index is followed by a list of maps, graphs and diagrams, also a list of special articles, etc., in previous issues of the Official Year Book. Area, population, etc., of particular localities are indexed under the locality concerned. Where the subject matter extends continuously over more than one page the first page only is indexed.

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